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METEOROLOGICAL DATA REPORT

19310A MLRS
Missile Numbers BNO-14, BNO-33, BNO-34
Round Numbers V-175/MD-36, V-177/MD-38, V-176/MD-37
24 July 1981

by

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

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1. REPORT NUMBER DR 1199	2. GOVT ACCESSION NO. AD-A104199	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 19310A MLRS - Missile Numbers BNO-14, BNO-33, and BNO-34, Round Numbers V175/MD-36, V177/MD-38, and V176/MD-37		5. TYPE OF REPORT & PERIOD COVERED
7. AUTHOR(s) White Sands Meteorological Team		8. CONTRACT OR GRANT NUMBER(s) DA Task/1F665702D127402
9. PERFORMING ORGANIZATION NAME AND ADDRESS		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cmd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 88002		12. REPORT DATE July 1981
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research & Development Cmd Adelphi, MD 20783		13. NUMBER OF PAGES 51
		15. SECURITY CLASS. (of this report) UNCLASSIFIED
16. DISTRIBUTION STATEMENT (of this Report)		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) Approved for public release; distribution unlimited.		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 19310A MLRS, Missile Numbers BNO-14, BNO-33, and BNO-34, Round Numbers V175/MD-36, V177/MD-38 and V176/MD-37 presented in tabular form.		

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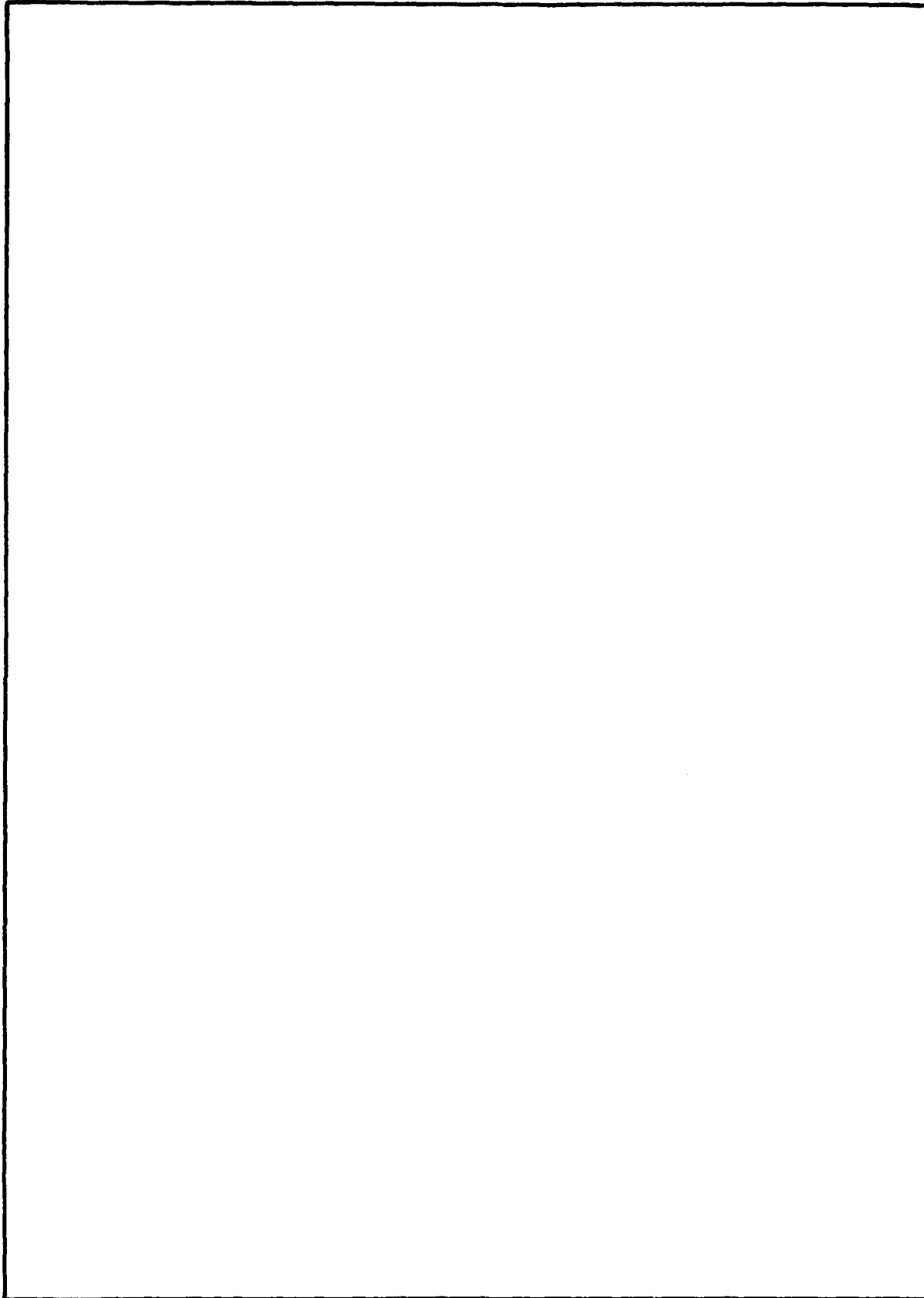
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INTRODUCTION

19310A MLRS, Missile Numbers BNO-14, BNO-33, and BNO-34, Round Numbers V-175/MD-36, V-176/MD-37 and V-177/MD-38, were launched from BRILLO, White Sands Missile Range (WSMR), New Mexico, at 1505:08, 1505:13 and 1631:05 MDT, 24 July 1981. The scheduled launch times were 1500, 1500:04.5 and 1500:09 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations:

a. Surface.

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the D-3 1/2 Met Site at T-0 minutes.

(2) Monitor of wind speed and direction from one anemometer was provided in the launch control room.

b. Upper Air:

(1) Low level wind data were obtained from Pilot-Balloon observations at:

SITE AND ALTITUDE

D-3 1/2	2000 Meters
MAL	1750 Meters
MAL	1750 Meters

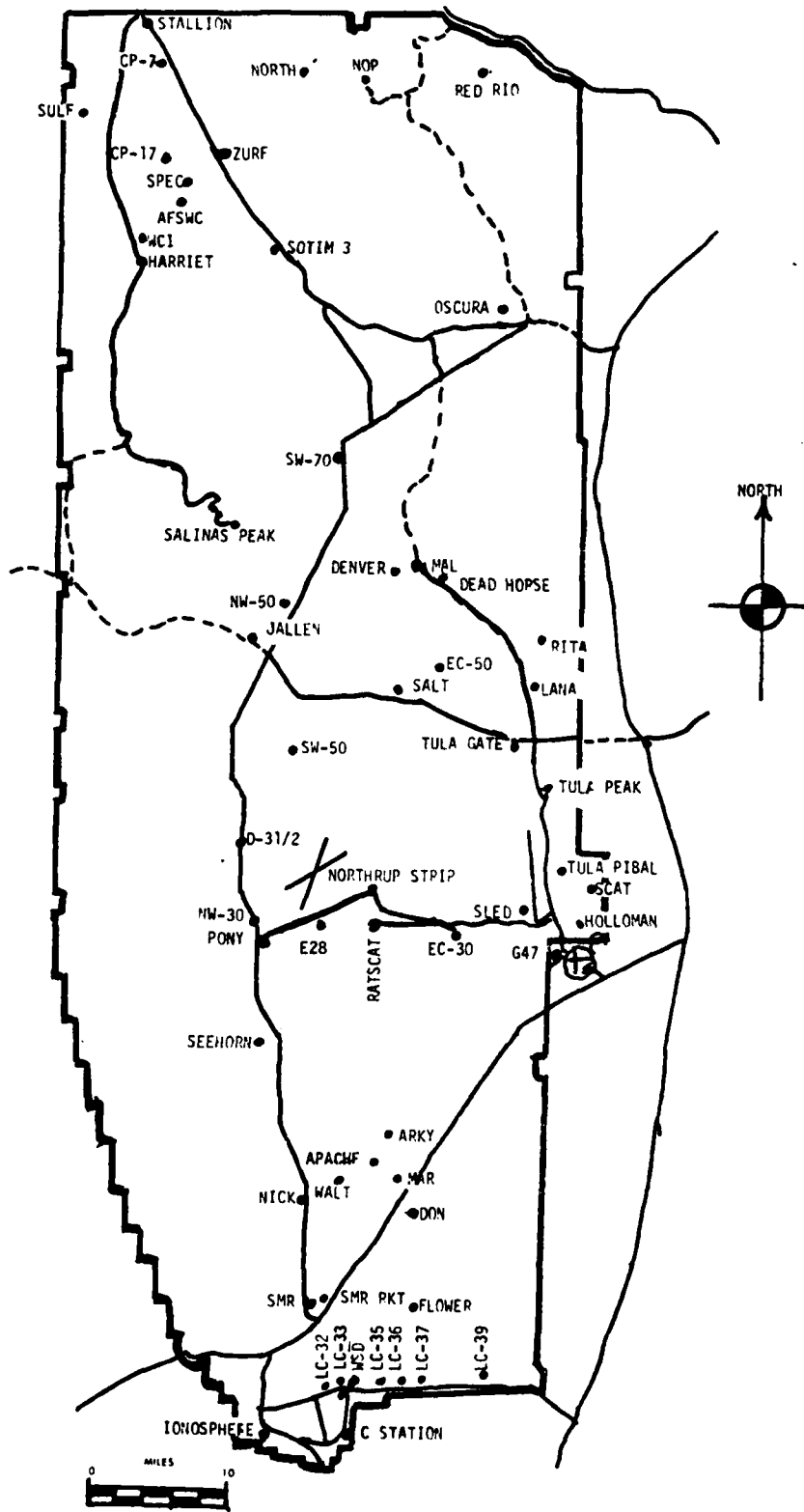
(2) Air structure data (rawinsonde) were collected at the following Met Sites:

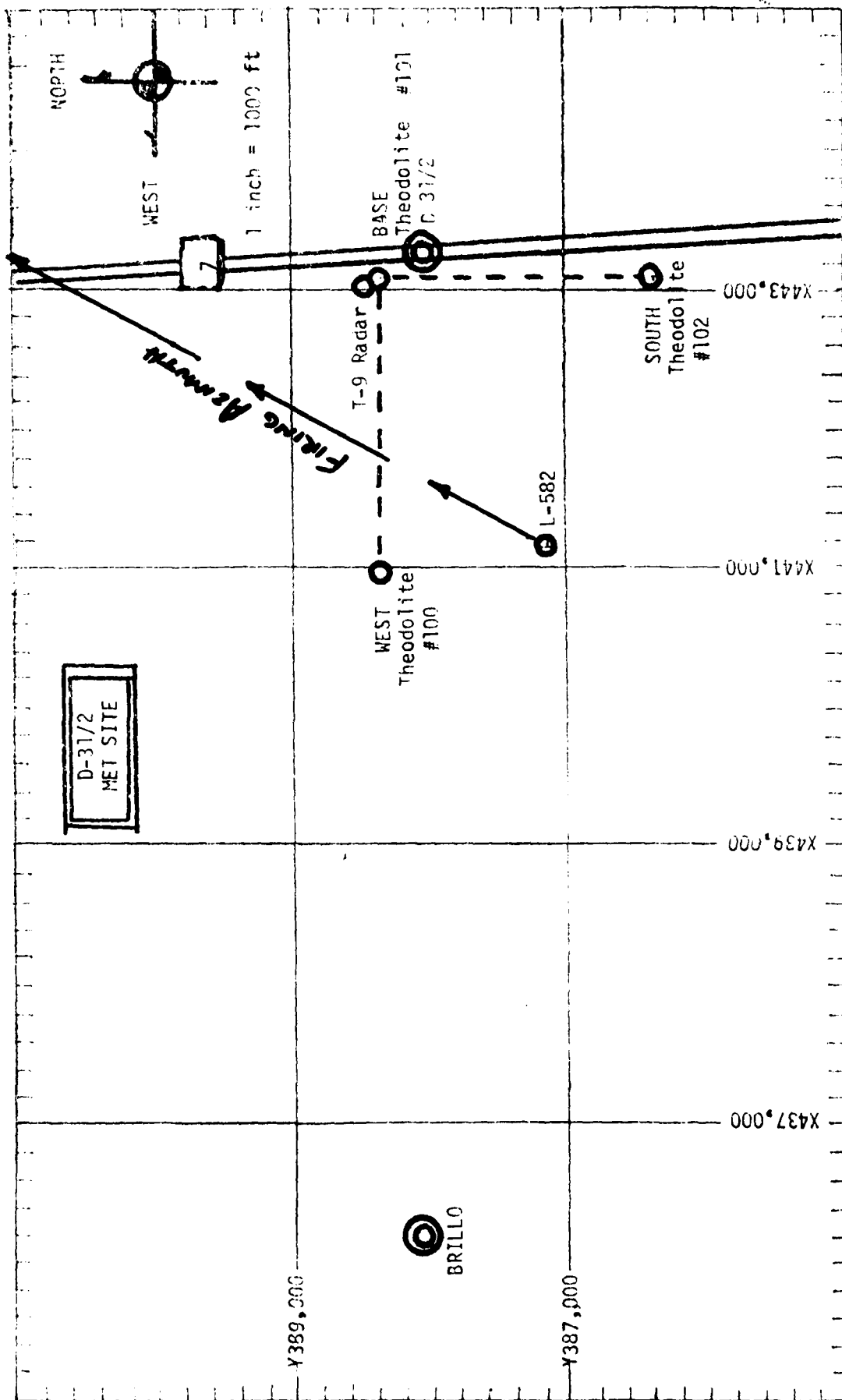
SITE AND TIME

WSD	1000 MDT
NW-30	1200 MDT
Jallen	1230 MDT
NW-30	1500 MDT
Jallen	1700 MDT

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DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Avail and/or	
Dist	Special
A	

WSMR METEOROLOGICAL SITES





PROJECT SURFACE OBSERVATION

TABLE <u>1</u>											
STATION <u>D-3 1/2</u>											
DATE <u>24</u>		<u>JULY</u>		<u>1981</u>		<u>X= 443,093.12</u>		<u>Y= 388,317.32</u>		<u>H= 3,964.4</u>	
DAY		MONTH		YEAR							
TIME	PRESSURE	TEMPERATURE	DEW POINT	RELATIVE	DENSITY	WIND		VISIBIL-			
M D J	mbs	OF °C	OF °C	HUMIDITY %	gm/m ³	DIRECTION	SPEED	CHARACTER	ITY		
						degs	kts	kts			
1500	875.6	37.0	9.6	19	973	270	02		40		

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	TYPE	AMT	TYPE	AMT	TYPE	
	4	AC	15,000	2	CI	23,000	

PSYCHROMETRIC COMPUTATION

TIME:	MDT	1500	
DRY BULB TEMP.		37.0	
WET BULB TEMP.		19.1	
WET BULB DEPR.		17.9	
DEW POINT		9.6	
RELATIVE HUMID.		19	

TABLE 2

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 24 July 1981

SITE: D-3 1/2

TIME: 1500 MDT

WST' COORDINATES:

X= 443,093.12

Y= 388,317.32

H= 3,964.34

SITE: MAL

TIME: 1500 MDT

WST' COORDINATES:

X= 509,421.05

Y= 495,563.18

H= 4,126.81

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	270	02
150	M I S G	
210	M I S G	
270	154	09
330	166	07
390	169	06
500	150	06
650	122	03
800	108	03
950	147	06
1150	155	06
1350	206	07
1550	224	07
1750	225	08
2000	226	09

Data obtained from Single Theodolite
Tracked Pilot-Balloon observation.

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	240	02
150	211	07
210	207	07
270	204	07
330	201	07
390	187	07
500	178	06
650	189	05
800	197	03
950	227	01
1150	237	04
1350	244	10
1550	240	13
1750	232	13
2000	M I S G	

Data obtained from Double Theodolite
Tracked Pilot-Balloon observation.

TABLE 3

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 24 July 1981

SITE: MAL
TIME: 1640 MDT
ASTM COORDINATES:
X= 509,421.05
Y= 495,563.18
H= 4,126.81

SITE:
TIME:
ASTM COORDINATES:
X=
Y=
H=

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	250	04
150	224	06
210	220	06
270	222	07
330	208	05
390	187	05
500	223	08
650	238	14
800	240	12
950	243	08
1150	240	07
1350	225	05
1550	248	08
1750	237	04
2000	M I S G	

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE		
150		
210		
270		
330		
390		
500		
650		
800		
950		
1150		
1350		
1550		
1750		
2000		

Data obtained from Double Theodolite
Tracked Pilot-Balloon observation.

TABLE 4

AIMING AND T-TIME COMPUTER MET MESSAGES
24 July 1981

WSD 1000 MDT	NW-30 1200 MDT	JALLEN 1330 MDT
METCM1324064	METCM1329065	METCM1332065
241600122881	241800123880	241950124877
00133032 30520881	00213003 30890880	00267005 31220877
01105004 30390871	01149003 30680870	01271004 20890867
02065004 30100847	02066004 30360846	02222006 30540843
03114003 29800809	03014004 30010809	03295004 20160806
04100004 29560764	04627003 29580764	04502003 29700762
05561006 29180721	05436003 29210721	05403003 29250719
06589003 28800680	06414003 28840680	06444077 28850678
07014001 28350640	07430005 28410640	07441009 28430639
08373008 27910603	08411007 27970603	08424010 27990601
09411005 27490567	09412007 27600567	09457008 27590565
10347003 27070533	10363007 27220533	10466009 27170531
11422005 26730500	11434009 26850500	11482010 26760499
12349011 26330454	12374015 26410454	12398012 26320453
13334016 25610398	13360017 25700399	13364021 25660397
14363009 29490348	14383011 25070349	14381017 24970347
15340010 24210303	15376009 24260304	15386016 24260303
16371007 23530263	16396014 23560263	16397018 23540262
17523010 22760227	17483015 22790227	17451019 22750227
18526010 21950195	18483014 22010195	18483019 22030195
19496011 21190166	19456016 21360167	19462017 21360166
20544020 20600141	20522020 20730142	20527021 20740142
21582013 20190120	21561012 20300121	21558009 20360120
22170001 20460101	22097005 20360102	22260001 20330102
23172015 20610086	23238013 20850086	23269010 20820086
24191008 20920073	24111005 21070074	24111005 21050073
25182024 21370062	25214016 21410063	25194013 21400062
26189023 21610053	26188019 21680054	26177017 21600053

TABLE 5

AIMING AND T-TIME COMPUTER MET MESSAGES
24 July 1981

NW-30 1500 MDT
METCM1329065
242100123878
00133004 31130878
01169005 31060868
02169009 30750844
03173008 30330807
04240004 29810763
05442011 29340720
06449012 28910679
07480010 28470640
08441005 28030603
09457007 27630567
10489009 27260533
11451011 26860500
12362015 26390454
13358020 25680399
14370014 25020349
15379017 24220304
16391015 23540263
17452015 22740227
18502014 21950195
19484016 21180167
20546020 20620142
21578001 20330120
22332002 20280102
23269012 20700086
24120009 20960073
25195016 21410062
26165017 21540053

JALLEN 1700 MDT
METCM1332065
242300124874
00391005 31080874
01353008 31030864
02333007 30770841
03391002 30390804
04483008 29910760
05498009 29430717
06528009 28960677
07516008 28500638
08463005 28030600
09444007 27600565
10433008 27230531
11414012 26830498
12372016 26310452
13371018 25720397
14385018 25030347
15425015 24270302
16401017 23430262
17461015 22610226
18514014 21860194
19494016 21110166
20528020 20560141
21387010 20320119
22354009 20310101
23444004 20850086
24174017 21180073
25157012 21350062
26122021 21680053

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

SIGNIFICANT LEVEL DATA
2050020475
WHITE SANDS

STATION ALTITUDE 3489.00 FEET MSL
24 JULY 61
ASCENSION NO. 475

TABLE 6

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
MILLIBARS	MSL FEET	DEGREES		
680.6	3389.0	30.3	13.1	35.0
850.0	5020.7	26.0	12.8	44.0
780.2	7482.0	21.3	6.2	43.0
751.0	8566.7	20.5	6.1	39.0
700.0	10547.7	16.0	3.4	43.0
650.2	12337.7	11.0	1.3	51.0
637.8	13116.1	9.1	1.5	59.0
609.0	14369.3	6.1	-3.8	49.0
580.0	15676.3	2.5	-5.8	54.0
545.0	17321.5	-1.0	-11.7	44.0
516.1	18741.8	-5.1	-8.8	75.0
500.0	19559.7	-6.5	-11.0	70.0
493.2	19912.1	-6.2	-16.8	36.0
477.2	20758.4	-7.9	-19.1	40.0
460.2	21190.5	-8.4	-23.0	28.0
461.4	21618.1	-8.7	-25.1	25.0
400.0	25204.1	-16.7	-30.1	30.0
375.8	26734.4	-21.0	-33.0	36.0
361.2	27696.4	-21.8	-32.8	33.0
347.0	28665.4	-23.5	-30.4	53.0
332.8	29666.8	-25.9	-33.0	51.0
319.4	30642.4	-28.2	-33.0	63.0
311.8	31209.4	-30.0	-35.1	61.0
300.0	32111.4	-31.6	-40.2	42.0
291.8	32755.9	-32.5	-45.6	25.0
290.0	36286.5	-40.4	-49.9	35.0
200.0	41168.6	-52.5		
155.8	46351.7	-63.9		
150.0	47116.5	-64.9		
137.4	48068.3	-68.0		
112.4	52804.3	-72.6		
100.0	55100.5	-67.2		
86.4	58005.2	-68.0		
80.0	59543.4	-64.9		
76.4	60468.8	-65.7		
70.0	62238.9	-62.2		
55.4	67078.3	-56.4		
50.0	69227.1	-56.9		
39.6	74129.4	-55.1		
30.0	80057.6	-50.3		

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

SIGNIFICANT LEVEL DATA
 2050020475
 WHITE SANDS

STATION ALTITUDE 3389.00 FEET MSL
 20 JULY 61 1000 HRS MDT
 ASCENDING 10. 475

TABLE 6 CONT

PRESSURE	GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
20.0	8680.6	-47.0		
13.8	97152.5	-39.7		

STATION ALTITUDE 3984.00 FEET MSL
24 JULY 51
ASCENSION NO. 475

UPPER AIR DATA
2050020475
WHITE SANDS

GEODETLIC COORDINATES
32.40043 LAT DEG
106.57033 LONG DEG

TABLE 7

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	WIND DATA			INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS		
3489.0	880.6	30.3	35.0	1004.4	680.9	75.0	1.9		1.000286
4000.0	860.3	30.3	35.1	1004.1	680.8	74.7	1.9		1.000286
4500.0	850.3	28.2	39.5	993.8	678.5	39.8	.4		1.000284
5000.0	850.5	26.1	43.8	983.7	676.1	25.4	11.6		1.000282
5500.0	835.9	25.1	43.8	970.3	674.9	24.4	11.7		1.000276
6000.0	821.5	24.1	43.6	950.9	673.7	23.5	11.7		1.000270
6500.0	807.3	23.2	43.4	943.6	672.6	22.6	11.8		1.000264
7000.0	793.4	22.2	43.2	930.6	671.4	21.7	11.8		1.000258
7500.0	779.7	21.3	42.9	917.6	670.3	20.8	11.9		1.000252
8000.0	760.1	20.9	41.1	903.0	669.7	19.9	11.9		1.000246
8500.0	752.8	20.5	39.2	888.6	669.2	19.1	12.0		1.000240
9000.0	739.5	19.5	39.9	876.2	668.0	18.2	12.1		1.000235
9500.0	720.5	18.4	40.9	864.3	666.7	17.3	12.1		1.000231
10000.0	713.7	17.2	41.9	852.5	665.3	16.5	12.2		1.000227
10500.0	701.2	16.1	42.9	840.9	664.0	15.9	10.9		1.000223
11000.0	688.7	14.7	45.0	829.9	662.4	35.2	5.2		1.000219
11500.0	676.3	13.3	47.3	819.1	660.7	318.5	2.7		1.000216
12000.0	664.2	11.9	49.5	808.5	659.1	347.9	1.6		1.000212
12500.0	652.3	10.6	52.7	797.7	657.5	340.9	.8		1.000209
13000.0	640.5	9.4	57.8	786.6	656.2	260.8	.2		1.000208
13500.0	628.8	8.2	55.9	775.8	654.6	208.8	2.3		1.000202
14000.0	617.3	7.0	51.9	765.3	653.1	207.9	4.8		1.000196
14500.0	606.0	5.7	49.5	754.9	651.5	209.2	6.2		1.000190
15000.0	594.8	4.4	51.4	744.7	649.9	210.2	7.5		1.000187
15500.0	583.8	3.0	53.3	734.6	648.2	219.3	6.5		1.000184
16000.0	572.9	1.8	52.0	724.2	646.8	230.9	5.7		1.000179
16500.0	562.2	.7	49.0	713.5	645.4	230.8	5.1		1.000175
17000.0	551.7	-3	46.0	703.1	644.1	227.6	4.5		1.000171
17500.0	541.3	-1.5	47.9	692.9	642.7	210.2	3.9		1.000168
18000.0	531.0	-3.0	58.8	683.2	641.0	200.7	3.5		1.000167
18500.0	520.9	-4.4	69.7	673.7	639.4	207.5	3.1		1.000166
19000.0	511.0	-5.5	73.4	663.7	638.0	223.3	3.5		1.000164
19500.0	501.2	-6.4	70.4	653.2	636.9	236.4	4.7		1.000160
20000.0	491.5	-6.4	36.4	641.2	636.6	237.3	5.1		1.000150
20500.0	482.0	-7.4	38.8	631.2	635.4	235.9	5.4		1.000148
21000.0	472.7	-8.2	33.3	620.9	634.4	222.9	6.4		1.000144
21500.0	463.5	-8.6	25.8	610.0	633.8	209.4	8.0		1.000140
22000.0	454.4	-9.6	25.5	600.2	632.7	195.9	10.8		1.000138
22500.0	445.5	-10.7	26.2	590.9	631.4	188.7	13.2		1.000136
23000.0	436.7	-11.8	26.9	581.7	630.0	183.9	15.6		1.000133

STATION ALTITUDE 5489.00 FEET MSL
24 JULY 41
ASCENSION, NO. 475

UPPER AIR DATA
2050020475
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

TABLE 7 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	"INDU DATA" DIRECTION DEGREES (TH)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	420.1	-12.9	27.6	572.7	628.7	106.7	16.4	1.000131
24000.0	419.6	-14.0	28.3	563.0	627.3	109.0	17.1	1.000129
24500.0	411.4	-15.1	29.0	555.1	625.9	190.9	16.9	1.000127
25000.0	403.3	-16.2	29.7	546.6	624.6	191.9	16.6	1.000125
25500.0	395.2	-17.5	30.6	538.4	623.0	109.2	15.8	1.000123
26000.0	387.2	-18.9	31.6	530.4	621.3	100.0	15.0	1.000121
26500.0	379.4	-20.3	32.5	522.0	619.5	105.0	14.5	1.000119
27000.0	371.7	-21.2	33.8	513.0	618.5	104.9	13.6	1.000117
27500.0	364.1	-21.6	35.4	504.2	618.0	192.5	10.9	1.000115
28000.0	356.7	-22.3	41.3	495.2	617.1	203.3	8.9	1.000113
28500.0	349.4	-23.2	50.1	486.7	616.1	214.7	8.0	1.000111
29000.0	342.2	-24.3	52.3	478.8	614.7	219.1	7.9	1.000109
29500.0	335.1	-25.5	51.3	471.2	613.2	209.7	9.0	1.000107
30000.0	328.2	-26.7	55.1	463.6	611.7	203.0	9.8	1.000106
30500.0	321.3	-27.9	61.2	456.2	610.3	197.5	10.1	1.000104
31000.0	314.6	-29.3	61.7	449.3	608.4	193.3	10.2	1.000102
31500.0	307.9	-30.5	54.9	442.0	606.9	190.0	10.2	1.000100
32000.0	301.4	-31.4	44.3	434.3	605.8	100.0	10.2	1.000098
32500.0	295.0	-32.1	31.8	426.4	604.8	199.3	10.2	1.000096
33000.0	288.7	-33.0	25.7	418.0	603.7	192.1	10.3	1.000094
33500.0	282.4	-34.2	27.1	411.7	602.3	196.2	10.6	1.000092
34000.0	276.3	-35.3	28.5	404.6	600.9	194.3	10.1	1.000091
34500.0	270.3	-36.4	29.9	397.8	599.5	109.4	9.3	1.000089
35000.0	264.5	-37.5	31.4	391.0	598.0	193.5	7.3	1.000088
35500.0	258.8	-38.6	32.8	384.4	596.8	204.3	5.2	1.000086
36000.0	253.2	-39.8	34.2	377.8	595.2	205.3	5.6	1.000085
36500.0	247.6	-40.9	33.5**	371.4	593.7	282.0	9.5	1.000083
37000.0	242.0	-42.2	29.9**	364.9	592.1	209.0	10.8	1.000082
37500.0	236.5	-43.4	26.3**	358.6	590.5	294.2	11.4	1.000080
38000.0	231.2	-44.6	22.7**	352.4	588.9	295.0	10.1	1.000079
38500.0	225.9	-45.9	19.1**	346.3	587.3	295.1	8.3	1.000077
39000.0	220.8	-47.1	15.5**	340.4	585.7	294.3	8.4	1.000076
39500.0	215.8	-48.4	12.0**	334.5	584.1	293.4	8.9	1.000075
40000.0	211.0	-49.6	8.4**	328.8	582.5	293.1	9.2	1.000073
40500.0	206.2	-50.8	4.8**	323.1	580.9	292.9	9.4	1.000072
41000.0	201.5	-52.1	1.2**	317.6	579.2	294.0	9.4	1.000071
41500.0	196.8	-53.2		311.8	577.7	295.6	9.3	1.000069
42000.0	192.1	-54.3		305.9	576.3	296.7	9.3	1.000068
42500.0	187.6	-55.4		300.1	574.8	297.2	9.3	1.000067
43000.0	183.1	-56.5		294.5	573.4	295.9	9.4	1.000066

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

UPPER AIR DATA
2050020475
WHITE SANDS

STATION ALTITUDE 3989.00 FEET MSL
24 JULY 61
1000 HRS MDT
ASCENSION NO. 475

TABLE 7 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KIOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES (TN)	SPEED KIOTS	
43500.0	176.7	-57.6			288.9	571.9	293.2	9.6	1.000064
44000.0	174.5	-58.7			283.5	570.5	289.7	10.0	1.000063
44500.0	170.3	-59.8			278.2	569.0	286.1	10.5	1.000062
45000.0	166.3	-60.9			273.0	567.5	282.1	11.1	1.000061
45500.0	162.3	-62.0			267.8	566.1	277.7	11.6	1.000060
46000.0	158.5	-63.1			262.8	564.6	276.2	12.5	1.000059
46500.0	154.7	-64.1			257.7	563.3	274.0	14.3	1.000057
47000.0	150.9	-64.7			252.2	562.4	270.0	16.3	1.000056
47500.0	147.1	-65.6			247.0	561.3	266.3	18.2	1.000055
48000.0	143.5	-66.5			241.9	560.1	301.5	20.2	1.000054
48500.0	140.0	-67.3			236.9	558.9	305.0	20.9	1.000053
49000.0	136.5	-68.2			231.9	557.8	307.9	20.9	1.000052
49500.0	133.0	-68.7			226.7	557.0	311.5	20.5	1.000051
50000.0	129.7	-69.3			221.7	556.2	316.5	19.7	1.000049
50500.0	126.4	-69.9			216.7	555.4	321.7	18.9	1.000048
51000.0	123.2	-70.5			211.8	554.6	325.8	17.2	1.000047
51500.0	120.1	-71.1			207.1	553.8	330.8	15.6	1.000046
52000.0	117.1	-71.7			202.5	553.0	330.7	12.4	1.000045
52500.0	114.2	-72.2			197.9	552.2	329.0	8.9	1.000044
53000.0	111.3	-72.1			192.9	552.3	329.4	5.9	1.000043
53500.0	108.5	-71.0			186.9	554.0	334.8	3.2	1.000042
54000.0	105.8	-69.8			181.2	555.6	359.4	1.1	1.000040
54500.0	103.1	-68.6			175.6	557.2	64.3	.5	1.000039
55000.0	100.5	-67.4			170.2	558.8	124.0	1.1	1.000038
55500.0	98.0	-67.3			165.9	558.9	102.6	2.4	1.000037
56000.0	95.6	-67.4			161.9	558.7	93.4	4.0	1.000036
56500.0	93.2	-67.6			157.9	558.6	82.4	6.8	1.000035
57000.0	90.9	-67.7			154.1	558.4	73.6	11.6	1.000034
57500.0	88.6	-67.9			150.4	558.2	70.0	16.4	1.000033
58000.0	86.4	-68.0			146.8	558.0	71.7	15.9	1.000033
58500.0	84.3	-67.0			142.4	559.4	74.3	14.9	1.000032
59000.0	82.2	-66.0			138.2	560.7	79.7	13.0	1.000031
59500.0	80.2	-65.0			134.2	562.1	93.3	10.1	1.000030
60000.0	78.2	-65.3			131.1	561.7	115.4	8.1	1.000029
60500.0	76.3	-65.6			128.1	561.2	119.4	9.9	1.000029
61000.0	74.4	-64.6			124.3	562.5	116.9	12.3	1.000028
61500.0	72.6	-63.7			120.7	563.9	117.4	14.4	1.000027
62000.0	70.8	-62.7			117.2	565.2	114.2	16.1	1.000026
62500.0	69.1	-61.9			114.3	566.2	111.6	17.8	1.000025
63000.0	67.5	-61.3			110.9	567.1	110.5	19.3	1.000025

STATION ALTITUDE 3439.00 FEET MSL
24 JULY 61
ASCL:15101, 1.0, 475

UPPER AIR DATA
2050020475
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

TABLE 7 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KIOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KIOTS	INDEX OF REFRACTION.
63500.0	65.9	-60.7		108.0	567.9	109.6	20.8	1.000024
64000.0	64.3	-60.1		105.1	568.7	109.1	21.9	1.000023
64500.0	62.8	-59.5		102.3	569.5	108.2	22.2	1.000023
65000.0	61.3	-58.9		99.6	570.3	107.3	22.5	1.000022
65500.0	59.8	-58.3		96.9	571.0	105.4	21.6	1.000022
66000.0	58.4	-57.7		94.4	571.8	102.9	20.2	1.000021
66500.0	57.0	-57.1		91.9	572.6	100.4	19.2	1.000020
67000.0	55.6	-56.5		89.4	573.4	102.9	21.0	1.000020
67500.0	54.3	-56.5		87.3	573.4	104.9	22.9	1.000019
68000.0	53.0	-56.6		85.3	573.3	106.8	23.9	1.000019
68500.0	51.8	-56.7		83.3	573.1	108.8	23.8	1.000019
69000.0	50.5	-56.8		81.4	573.0	110.6	23.8	1.000018
69500.0	49.4	-56.8		79.5	573.0	109.7	22.1	1.000018
70000.0	48.2	-56.6		77.5	573.3	107.4	20.1	1.000017
70500.0	47.1	-56.4		75.7	573.5	104.7	18.2	1.000017
71000.0	46.0	-56.2		73.8	573.8	102.5	18.3	1.000016
71500.0	44.9	-56.1		72.0	574.0	100.3	18.5	1.000016
72000.0	43.8	-55.9		70.3	574.2	97.7	18.8	1.000016
72500.0	42.8	-55.7		68.6	574.5	93.5	20.0	1.000015
73000.0	41.8	-55.5		66.9	574.7	89.7	21.3	1.000015
73500.0	40.8	-55.3		65.3	575.0	85.1	22.7	1.000015
74000.0	39.8	-55.1		63.7	575.2	77.8	24.6	1.000014
74500.0	38.9	-54.8		62.1	575.7	71.6	26.9	1.000014
75000.0	38.0	-54.4		60.5	576.2	68.6	29.3	1.000013
75500.0	37.1	-54.0		59.0	576.7	69.8	31.7	1.000013
76000.0	36.3	-53.6		57.6	577.3	70.9	34.0	1.000013
76500.0	35.4	-53.2		56.1	577.8	73.3	36.2	1.000012
77000.0	34.6	-52.8		54.7	578.3	77.3	38.3	1.000012
77500.0	33.8	-52.4		53.4	578.9	80.9	40.5	1.000012
78000.0	33.0	-52.0		52.0	579.4	83.3	42.1	1.000012
78500.0	32.3	-51.6		50.7	579.9	84.4	42.6	1.000011
79000.0	31.5	-51.2		49.5	580.5	85.4	43.2	1.000011
79500.0	30.8	-50.8		48.2	581.0	86.6	43.2	1.000011
80000.0	30.1	-50.3		47.0	581.5	88.0	42.3	1.000010
80500.0	29.4	-50.1		45.9	581.8	89.5	41.4	1.000010
81000.0	28.7	-49.9		44.8	582.0	90.8	40.6	1.000010
81500.0	28.1	-49.8		43.8	582.3	91.4	39.8	1.000010
82000.0	27.4	-49.6		42.8	582.5	92.1	39.0	1.000010
82500.0	26.8	-49.4		41.7	582.8	92.9	38.4	1.000009
83000.0	26.2	-49.2		40.8	583.0	94.3	38.9	1.000009

STATION ALTITUDE 3489.00 FEET MSL
24 JULY 51 1000 HRS MDT
ASCENSION 110. 475

UPPER AIR DATA
2050020475
WHITE SANDS
TABLE 7 CONT

GEODETTIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KIOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KIOTS	INDEX OF REFRACTION
63500.0	25.6	-49.0		39.8	583.2	95.0	39.5	1.000009
84000.0	25.0	-48.8		38.9	583.5	90.0	40.1	1.000009
84500.0	24.5	-48.6		38.0	583.7	97.7	39.9	1.000008
85000.0	23.9	-48.5		37.1	584.0	98.6	39.8	1.000008
85500.0	23.4	-48.3		36.2	584.2	99.4	39.8	1.000008
86000.0	22.8	-48.1		35.3	584.5	100.7	39.7	1.000008
86500.0	22.3	-47.9		34.5	584.7	102.0	39.6	1.000008
87000.0	21.8	-47.7		33.7	584.9	103.3	39.5	1.000007
87500.0	21.3	-47.5		32.9	585.2	104.6	39.8	1.000007
88000.0	20.8	-47.3		32.1	585.4	105.9	40.3	1.000007
88500.0	20.4	-47.1		31.4	585.7	107.2	40.8	1.000007
89000.0	19.9	-46.9		30.6	586.0	108.0	41.4	1.000007
89500.0	19.5	-46.5		29.9	586.6	109.1	42.4	1.000007
90000.0	19.0	-46.0		29.2	587.1	108.0	43.4	1.000006
90500.0	18.6	-45.6		28.5	587.7	107.0	44.4	1.000006
91000.0	18.2	-45.1		27.8	588.3	106.7	44.4	1.000006
91500.0	17.8	-44.7		27.1	588.8	105.0	43.9	1.000006
92000.0	17.4	-44.2		26.5	589.4	103.3	43.5	1.000006
92500.0	17.0	-43.8		25.8	590.0	101.3	43.0	1.000006
93000.0	16.6	-43.4		25.2	590.5	98.4	41.9	1.000006
93500.0	16.3	-42.9		24.6	591.1	95.2	40.9	1.000005
94000.0	15.9	-42.5		24.0	591.7	91.9	40.0	1.000005
94500.0	15.5	-42.0		23.4	592.2			1.000005
95000.0	15.2	-41.6		22.9	592.8			1.000005
95500.0	14.9	-41.2		22.3	593.4			1.000005
96000.0	14.5	-40.7		21.8	593.9			1.000005
96500.0	14.2	-40.3		21.3	594.5			1.000005
97000.0	13.9	-39.8		20.7	595.1			1.000005

STATION ALTITUDE 3989.10 FEET MSL
24 JULY 21 1000 HRS MDT
ASCENSION NO. 475

MANDATORY LEVELS
205002047J
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

TABLE 8

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	ASL DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	5017.	26.0	12.8	44.	25.3	11.6
800.0	6761.	22.7	9.6	43.	22.1	11.8
750.0	8597.	20.4	6.0	39.	18.9	12.0
700.0	10537.	16.0	3.4	43.	13.0	10.4
650.0	12584.	10.4	1.4	54.	345.1	.7
600.0	14752.	5.0	-4.4	51.	209.8	6.8
550.0	17059.	-5.5	-10.8	45.	225.4	4.3
500.0	19532.	-6.5	-11.0	70.	237.4	4.8
450.0	22220.	-10.1	-25.9	26.	191.9	12.1
400.0	25161.	-16.7	-30.1	30.	191.1	16.3
350.0	28405.	-23.1	-30.6	49.	213.3	8.1
300.0	32046.	-31.6	-40.2	42.	186.9	10.2
250.0	36206.	-40.4	-49.9	35.	273.5	7.5
200.0	41067.	-52.5			294.5	9.3
175.0	43859.	-58.6			290.1	10.0
150.0	46987.	-64.9			291.1	16.7
125.0	50585.	-70.2			323.3	18.2
100.0	54928.	-67.2			127.8	1.2
80.0	59344.	-64.9			93.7	10.0
70.0	62023.	-62.2			113.1	16.8
60.0	65176.	-58.4			106.0	21.9
50.0	68964.	-56.9			110.9	23.4
40.0	73619.	-55.2			79.4	24.1
30.0	79712.	-50.3			88.0	42.3
25.0	83629.	-48.8			96.8	40.1
20.0	88459.	-47.0			108.0	41.2
15.0	94790.	-41.3				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4010.40 FEET MSL
24 JULY 61 1200 HRS NR
ASCENSION NO. 67

SIGNIFICANT LEVEL DATA
2050220067
NW 30

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LONG DEG

TABLE 9

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
679.8	4010.4	33.8	12.2	27.0
665.8	4484.7	31.0	11.4	30.0
650.0	5024.8	29.0	10.6	32.0
744.2	8047.2	19.5	4.4	37.0
700.0	10568.5	16.0	3.1	42.0
654.2	12444.0	11.4	.5	47.0
593.8	15073.4	4.1	-3	73.0
552.4	16995.0	.1	-6.3	82.0
503.8	19399.3	-5.5	-11.2	84.0
500.0	19594.8	-5.6	-12.5	58.0
480.4	20623.1	-7.6	-17.7	44.0
465.2	21445.1	-8.4	-26.8	21.0
450.0	22290.6	-9.8	-30.8	16.0
400.0	25243.1	-16.4	-34.0	20.0
384.4	26223.0	-18.9	-35.7	21.0
370.2	27144.8	-19.5	-28.4	45.0
342.2	29053.4	-23.6	-30.3	54.0
315.6	30981.9	-28.6	-33.6	62.0
300.0	32170.8	-31.5	-36.0	64.0
290.6	32910.7	-33.0	-37.4	64.0
284.6	33393.0	-34.0	-44.6	33.0
278.6	33883.3	-35.2	-45.7	33.0
250.0	36343.8	-40.2	-50.4	32.0
200.0	41228.9	-52.4		
150.0	47200.8	-63.9		
133.2	49577.5	-68.1		
111.2	53124.2	-71.5		
100.0	55205.4	-69.1		
91.4	56986.4	-67.4		
82.2	59123.9	-62.1		
76.4	60611.6	-63.7		
70.0	62393.5	-61.4		
63.0	64561.7	-59.4		
55.2	67316.2	-56.1		
50.0	69393.0	-56.4		
45.8	71236.3	-55.8		
40.6	73772.3	-55.8		
30.0	80238.5	-49.2		
23.6	85460.0	-48.0		
27.0	89098.6	-44.8		

GEOLITIC COORDINATES
 32.88497 LAT DEG
 106.49714 LONG DEG

SIGNIFICANT LEVEL DATA
 2050220007
 NW 30

STATION ALTITUDE 4610.40 FEET MSL
 24 JULY 61 1200 HRS MDT
 ASCENSION NO. 07

TABLE 9 CON'T

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
18.3 91073.1		-43.1

STATION ALTITUDE 4010.0 FEET MSL
24 JULY 61 1200 HRS MDT
ASCENSION, MO. 07

UPPER AIR DATA
205022000Z/
NW 30

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LONG DEG

TABLE 10

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
4010.0	879.3	33.8	27.0	992.4	684.6	120.0	2.9	1.000278
4500.0	863.3	30.9	30.1	985.5	681.4	91.0	2.5	1.000275
5000.0	850.7	29.1	31.9	974.9	679.2	69.2	2.8	1.000271
5500.0	835.1	27.8	32.6	962.4	677.7	40.2	3.7	1.000266
6000.0	821.7	26.6	33.3	949.9	676.3	25.0	4.1	1.000261
6500.0	807.5	25.3	33.9	937.6	674.8	6.3	3.8	1.000256
7000.0	793.6	24.1	34.6	925.5	673.3	33.3	3.9	1.000251
7500.0	779.9	22.8	35.2	913.5	671.9	350.2	3.7	1.000246
8000.0	765.5	21.6	35.9	901.7	670.4	337.4	2.8	1.000241
8500.0	753.2	20.4	36.5	890.1	668.9	337.4	2.0	1.000237
9000.0	740.2	19.2	37.4	878.3	667.5	300.3	1.6	1.000233
9500.0	727.1	18.2	38.9	865.8	666.3	235.0	2.1	1.000229
10000.0	714.3	17.2	40.3	853.6	665.2	230.3	2.8	1.000226
10500.0	701.7	16.1	41.8	841.5	664.0	228.0	3.4	1.000222
11000.0	689.2	14.9	43.2	830.0	662.6	231.2	3.4	1.000218
11500.0	675.9	13.7	44.5	818.8	661.1	237.0	3.2	1.000215
12000.0	664.8	12.5	45.8	807.7	659.7	242.0	3.6	1.000211
12500.0	652.9	11.2	47.6	796.8	658.2	245.0	4.2	1.000207
13000.0	640.9	9.9	52.5	785.0	656.6	240.4	4.9	1.000205
13500.0	629.2	8.5	57.4	773.4	655.0	235.5	5.3	1.000203
14000.0	617.8	7.1	62.4	765.0	653.4	229.8	5.5	1.000201
14500.0	606.5	5.7	67.3	754.8	651.8	231.1	6.2	1.000198
15000.0	595.4	4.3	72.3	744.7	650.2	233.3	7.0	1.000196
15500.0	584.3	3.2	76.6	734.0	648.8	237.1	7.7	1.000190
16000.0	573.5	2.2	67.7	723.3	647.5	234.4	7.6	1.000185
16500.0	562.8	1.1	64.8	712.7	646.1	227.0	7.1	1.000180
17000.0	552.3	.1	62.0	702.3	644.8	215.5	6.8	1.000176
17500.0	541.8	-1.1	62.4	692.0	643.4	204.2	6.7	1.000172
18000.0	531.5	-2.2	62.8	681.9	642.0	209.1	6.8	1.000169
18500.0	521.5	-3.4	63.3	672.0	640.5	215.0	6.9	1.000165
19000.0	511.6	-4.6	63.7	662.2	639.1	228.0	7.4	1.000162
19500.0	501.8	-5.6	60.9	652.1	637.4	238.9	8.3	1.000158
20000.0	492.2	-6.4	52.5	641.8	636.8	235.0	9.3	1.000154
20500.0	482.7	-7.4	45.7	631.9	635.5	239.5	10.1	1.000149
21000.0	473.4	-8.0	33.5	621.3	634.7	228.0	11.0	1.000144
21500.0	464.2	-8.5	20.7	610.7	634.0	214.3	12.9	1.000140
22000.0	455.2	-9.3	17.7	600.7	632.9	204.0	15.5	1.000137
22500.0	446.3	-10.3	16.3	591.1	631.8	203.5	17.0	1.000134
23000.0	437.4	-11.4	17.0	581.9	630.4	203.4	18.3	1.000132
23500.0	428.8	-12.5	17.6	572.9	629.1	204.7	18.7	1.000130

STATION ALTITUDE 4010.40 FEET MSL
24 JULY 61 1200 HRS NDT
ASCENSION NO. 67

UPPER AIR DATA
205022000Z
NW 30

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LONG DEG

TABLE 10 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (IN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24000.0	420.3	-13.6	18.3	564.0	627.7	203.2	19.0	1.000128
24500.0	412.0	-14.7	19.0	555.3	626.4	204.4	19.3	1.000126
25000.0	403.9	-15.9	19.7	546.7	625.0	202.5	18.8	1.000124
25500.0	395.9	-17.1	20.3	538.3	623.5	199.4	17.8	1.000122
26000.0	387.9	-18.3	20.8	530.1	622.0	200.5	15.9	1.000120
26500.0	380.1	-19.4	28.2	520.9	621.1	203.7	13.7	1.000118
27000.0	372.4	-19.4	29.2	511.0	620.7	209.3	12.3	1.000117
27500.0	364.8	-20.3	46.7	502.3	619.7	213.4	11.2	1.000115
28000.0	357.4	-21.3	49.0	494.1	618.4	214.6	10.8	1.000113
28500.0	350.1	-22.4	51.4	486.1	617.1	214.1	10.3	1.000111
29000.0	342.0	-23.5	53.7	478.3	615.7	214.9	10.7	1.000110
29500.0	335.8	-24.8	55.9	470.8	614.2	215.7	11.2	1.000108
30000.0	329.9	-26.1	57.9	463.4	612.5	217.0	10.7	1.000106
30500.0	322.0	-27.4	60.0	456.2	610.9	218.4	10.1	1.000104
31000.0	315.4	-28.6	62.0	449.1	609.3	218.6	9.3	1.000102
31500.0	308.7	-29.9	62.9	441.9	607.8	218.1	8.6	1.000100
32000.0	302.2	-31.1	63.7	434.7	606.2	212.5	9.4	1.000099
32500.0	295.8	-32.2	64.0	427.4	604.9	207.3	10.3	1.000097
33000.0	289.5	-33.5	58.3	420.1	603.6	200.9	12.5	1.000095
33500.0	283.3	-34.3	33.0	413.0	602.2	197.1	14.7	1.000093
34000.0	277.2	-35.4	33.0	406.1	600.7	203.2	15.3	1.000091
34500.0	271.1	-36.5	32.7	399.0	599.4	208.8	16.0	1.000089
35000.0	265.2	-37.5	32.5	392.0	598.1	211.5	14.2	1.000088
35500.0	259.5	-38.5	32.3	385.1	596.8	236.6	13.2	1.000086
36000.0	253.8	-39.5	32.1	378.4	595.5	247.4	12.8	1.000085
36500.0	248.2	-40.6	31.0**	371.8	594.1	257.8	12.6	1.000083
37000.0	242.6	-41.8	27.7**	365.4	592.5	263.3	13.5	1.000082
37500.0	237.1	-43.1	24.4**	359.1	590.9	268.9	14.7	1.000080
38000.0	231.8	-44.3	21.2**	352.9	589.3	270.7	15.0	1.000079
38500.0	226.6	-45.6	17.9**	346.8	587.7	275.0	15.0	1.000077
39000.0	221.4	-46.8	14.6**	340.8	586.1	277.7	14.9	1.000076
39500.0	215.4	-48.1	11.3**	335.0	584.5	277.6	14.6	1.000075
40000.0	211.5	-49.3	8.0**	329.3	582.8	277.4	14.4	1.000073
40500.0	206.8	-50.6	4.8**	323.6	581.2	276.8	14.4	1.000072
41000.0	202.1	-51.8	1.5**	318.1	579.6	276.2	14.4	1.000071
41500.0	197.4	-52.9		312.3	578.1	273.2	14.5	1.000070
42000.0	192.7	-53.9		306.2	576.9	269.6	14.5	1.000068
42500.0	188.1	-54.8		300.2	575.6	264.3	14.4	1.000067
43000.0	183.6	-55.8		294.4	574.3	257.7	14.4	1.000066
43500.0	179.3	-56.8		288.6	573.1	252.7	14.4	1.000064

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4010.40 FEET MSL
24 JULY 61 1200 HRS MDT
ASCENSION NO. 67

UPPER AIR DATA
2050220067
NW 30

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LON DEG

TABLE 10 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
44000.0	175.0	-57.7		283.0	571.8	249.7	14.4	1.000063
44500.0	170.8	-58.7		277.5	570.5	249.4	14.7	1.000062
45000.0	166.8	-59.7		272.1	569.2	253.8	16.0	1.000061
45500.0	162.8	-60.6		266.9	567.9	261.2	17.5	1.000059
46000.0	158.9	-61.6		261.7	566.7	270.3	18.0	1.000058
46500.0	155.2	-62.6		256.6	565.4	279.2	18.8	1.000057
47000.0	151.5	-63.5		251.7	564.1	283.5	19.6	1.000056
47500.0	147.8	-64.4		246.6	562.8	288.0	20.0	1.000055
48000.0	144.1	-65.3		241.6	561.6	290.4	20.4	1.000054
48500.0	140.6	-66.2		236.6	560.4	290.9	20.8	1.000053
49000.0	137.1	-67.1		231.8	559.2	290.9	21.1	1.000052
49500.0	133.7	-68.0		227.0	558.0	293.1	20.9	1.000051
50000.0	130.4	-68.5		221.9	557.3	301.2	19.6	1.000049
50500.0	127.1	-69.0		216.9	556.7	310.2	18.7	1.000048
51000.0	123.9	-69.5		211.9	556.0	316.5	16.2	1.000047
51500.0	120.8	-69.9		207.1	555.3	324.3	13.5	1.000046
52000.0	117.7	-70.4		202.3	554.7	333.9	11.0	1.000045
52500.0	114.8	-70.9		197.7	554.0	343.7	8.3	1.000044
53000.0	111.9	-71.4		193.2	553.4	1.7	6.0	1.000043
53500.0	109.1	-71.1		188.1	553.8	20.7	5.5	1.000042
54000.0	106.3	-70.5		182.8	554.6	37.2	5.7	1.000041
54500.0	103.7	-69.9		177.7	555.4	51.3	6.3	1.000040
55000.0	101.1	-69.3		172.7	556.2	63.3	5.6	1.000038
55500.0	98.5	-68.8		168.0	556.9	77.7	5.3	1.000037
56000.0	95.1	-68.3		163.4	557.5	94.2	5.2	1.000036
56500.0	93.7	-67.9		159.0	558.2	123.9	5.3	1.000035
57000.0	91.3	-67.4		154.6	558.9	146.7	6.7	1.000034
57500.0	89.1	-66.1		149.9	560.5	158.9	8.4	1.000033
58000.0	86.9	-64.9		145.4	562.2	156.9	8.3	1.000032
58500.0	84.8	-63.6		141.0	563.9	154.8	8.3	1.000031
59000.0	82.7	-62.4		136.7	565.6	151.8	8.2	1.000030
59500.0	80.7	-62.5		133.5	565.4	140.0	7.7	1.000030
60000.0	78.7	-63.0		130.5	564.7	127.2	7.6	1.000029
60500.0	76.8	-63.6		127.7	564.0	115.2	7.9	1.000028
61000.0	75.0	-63.2		124.4	564.5	112.1	9.3	1.000028
61500.0	73.1	-62.6		121.0	565.4	109.9	10.8	1.000027
62000.0	71.4	-61.9		117.7	566.2	107.9	12.0	1.000026
62500.0	69.6	-61.3		114.5	567.0	105.3	12.7	1.000025
63000.0	68.0	-60.8		111.5	567.6	103.3	13.4	1.000025
63500.0	66.3	-60.4		108.6	568.3	102.9	13.8	1.000024

STATION ALTITUDE 4310.40 FEET MSL
24 JULY 61
ASCENSION NO. 07

1206 HRS MDT

UPPER AIR DATA
2050220007
NW 30

GEODETIC COORDINATES
32.08497 LAT DEG
106.49714 LONG DEG

TABLE 10 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION.
04000.0	64.7	-59.9		105.8	560.9	104.4	13.8	1.000024
04500.0	63.2	-59.5		103.0	569.5	105.9	13.8	1.000023
05000.0	61.7	-58.9		100.3	570.3	105.0	13.8	1.000022
05500.0	60.2	-58.3		97.6	571.1	104.3	13.8	1.000022
06000.0	58.8	-57.7		95.1	571.9	102.9	13.9	1.000021
06500.0	57.4	-57.1		92.6	572.7	101.7	14.2	1.000021
07000.0	56.0	-56.5		90.1	573.5	101.0	14.9	1.000020
07500.0	54.7	-56.1		87.8	573.9	100.4	15.6	1.000020
08000.0	53.4	-56.2		85.8	573.8	100.0	16.3	1.000019
08500.0	52.2	-56.3		83.8	573.7	101.3	16.5	1.000019
09000.0	50.9	-56.3		81.9	573.6	102.5	16.8	1.000018
09500.0	49.7	-56.4		79.9	573.5	103.7	17.1	1.000018
70000.0	48.6	-56.2		78.0	573.4	101.9	17.1	1.000017
70500.0	47.4	-56.0		76.1	574.0	99.0	17.2	1.000017
71000.0	46.3	-55.9		74.3	574.2	97.6	17.2	1.000017
71500.0	45.2	-55.8		72.5	574.3	93.8	17.9	1.000016
72000.0	44.2	-55.8		70.8	574.3	89.1	19.1	1.000016
72500.0	43.1	-55.8		69.1	574.3	85.1	20.5	1.000015
73000.0	42.1	-55.8		67.5	574.3	81.7	21.9	1.000015
73500.0	41.1	-55.8		65.9	574.3	79.4	23.3	1.000015
74000.0	40.2	-55.6		64.3	574.7	77.3	24.8	1.000014
74500.0	39.2	-55.1		62.7	575.3	75.5	26.2	1.000014
75000.0	38.3	-54.5		61.1	576.0	73.6	28.0	1.000014
75500.0	37.4	-54.0		59.5	576.7	70.4	29.8	1.000013
76000.0	36.6	-53.5		58.0	577.3	70.9	31.6	1.000013
76500.0	35.7	-53.0		56.6	578.0	77.4	33.4	1.000013
77000.0	34.9	-52.5		55.1	578.7	78.2	34.9	1.000012
77500.0	34.1	-52.0		53.7	579.4	79.0	36.5	1.000012
78000.0	33.3	-51.5		52.4	580.0	79.7	38.1	1.000012
78500.0	32.5	-51.0		51.0	580.7	81.4	38.8	1.000011
79000.0	31.8	-50.5		49.7	581.4	84.4	38.5	1.000011
79500.0	31.1	-50.0		48.5	582.0	87.4	38.4	1.000011
80000.0	30.3	-49.4		47.2	582.7	90.3	38.4	1.000011
80500.0	29.6	-49.1		46.1	583.1	92.7	38.3	1.000010
81000.0	29.0	-49.0		45.0	583.2	94.0	38.1	1.000010
81500.0	28.3	-48.9		44.0	583.4	97.0	38.0	1.000010
82000.0	27.7	-48.8		43.0	583.5	99.1	37.9	1.000010
82500.0	27.0	-48.7		42.0	583.7	99.3	37.8	1.000009
83000.0	26.4	-48.6		41.0	583.8	99.3	37.7	1.000009
83500.0	25.8	-48.5		40.0	584.0	99.3	37.6	1.000009

STATION ALTITUDE 4010.40 FEET MSL
24 JULY 61 1200 HRS MDT
ASCENSION, MO. 07

UPPER AIR DATA
2050220007
NW 30

GEOMETRIC ALTITUDE 4010.40 FEET MSL
24 JULY 61 1200 HRS MDT
ASCENSION, MO. 07

GEOMETRIC COORDINATES
32.88497 LAT DEG
106.49714 LONG DEG

TABLE 10 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
34000.0	25.2	-48.3		39.1	584.1	99.3	37.5	1.000009
34500.0	24.7	-48.2		38.2	584.3	100.3	37.3	1.000009
35000.0	24.1	-48.1		37.3	584.4	101.6	37.0	1.000008
35500.0	23.6	-48.0		36.4	584.6	102.8	36.8	1.000008
36000.0	23.0	-47.5		35.6	585.2	104.1	36.6	1.000008
36500.0	22.5	-47.1		34.7	585.7	104.4	36.6	1.000008
37000.0	22.0	-46.6		33.8	586.3	104.0	36.9	1.000008
37500.0	21.5	-46.2		33.0	586.9	103.6	37.1	1.000007
38000.0	21.0	-45.8		32.2	587.5	103.2	37.4	1.000007
38500.0	20.6	-45.3		31.4	588.0			1.000007
39000.0	20.1	-44.9		30.7	588.6			1.000007
39500.0	19.6	-44.5		29.9	589.1			1.000006
40000.0	19.2	-44.0		29.2	589.7			1.000006
40500.0	18.8	-43.6		28.5	590.3			1.000006
41000.0	18.4	-43.2		27.8	590.8			1.000006

STATION ALTITUDE 4010.40 FEET MSL
24 JULY 61 1200 HRS MDZ
ACQUISITION NO. 07

MANDATORY LEVELS
2150220067
NW 30

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LONG DEG

TABLE 11

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	AIR TEMPERATURE DEGREES	DEW POINT CENTIGRADE	REL. HUM. PERCENT	WIND DATA	
					DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	5021.	29.0	10.6	32.	59.0	2.8
800.0	6778.	24.7	7.9	34.	359.8	3.9
750.0	8620.	20.1	4.8	37.	331.0	1.8
700.0	10558.	16.0	3.1	42.	227.9	3.5
650.0	12608.	10.9	.6	49.	243.8	4.3
600.0	14778.	4.9	-1.1	70.	231.9	6.7
550.0	17088.	-2.2	-6.5	62.	213.0	8.8
500.0	19567.	-5.6	-12.3	58.	240.2	8.4
450.0	22257.	-9.8	-30.8	16.	203.7	16.3
400.0	25201.	-16.4	-34.0	20.	201.1	18.3
350.0	28458.	-22.4	-29.7	51.	214.1	10.3
300.0	32107.	-31.5	-36.0	64.	210.9	9.6
250.0	36264.	-40.2	-50.4	32.	234.2	12.6
200.0	41129.	-52.4			275.2	14.4
175.0	43927.	-57.7			249.5	14.4
150.0	47073.	-63.9			286.4	19.8
125.0	50686.	-69.3			314.2	17.3
100.0	55034.	-69.1			68.3	5.5
80.0	59479.	-62.7			36.3	7.6
70.0	62179.	-61.4			106.1	12.5
60.0	65338.	-58.2			104.2	13.9
50.0	69131.	-56.4			103.4	17.0
40.0	73790.	-55.5			77.1	24.9
30.0	79894.	-49.2			91.4	38.4
25.0	83826.	-48.3			99.5	37.4
20.0	88679.	-44.8				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
24 JULY 51
ASCENSION NO. 87
130 MRS MDT

SIGNIFICANT LEVEL DATA
21500JUN57
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 12

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
876.7	37.1	12.5	23.0
870.4	32.8	14.4	33.0
850.0	30.8	13.1	34.0
806.4	26.8	10.9	37.0
728.8	18.8	7.3	47.0
700.0	16.3	5.4	42.0
644.4	10.9	-0.2	46.0
590.0	4.4	-1.8	64.0
556.0	1.0	-6.3	58.0
500.0	-6.2	-10.9	69.0
479.2	-7.3	-21.5	31.0
442.0	-11.2	-26.8	26.0
400.0	-16.5	-29.6	31.0
375.0	-19.3	-31.1	34.0
360.0	-20.2	-28.3	48.0
350.6	-21.6	-30.5	44.0
350.9	-23.2	-27.7	66.0
317.2	-28.7	-32.3	71.0
309.3	-28.7	-34.0	60.0
300.0	-30.8	-37.2	53.0
286.8	-33.7	-43.5	36.0
274.4	-35.0	-44.7	36.0
250.0	-40.6	-46.7	41.0
244.8	-41.8	-50.9	36.0
200.0	-51.7		
150.0	-63.7		
127.4	-69.4		
119.6	-69.1		
105.0	-72.1		
100.0	-69.1		
85.2	-64.1		
79.2	-64.3		
70.0	-62.0		
59.8	-57.9		
50.0	-56.7		
36.2	-53.3		
30.0	-47.9		
20.0	-45.2		
16.4	-42.0		
13.0	-39.4		

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

SIGNIFICANT LEVEL DATA
 20500.30067
 JALLEN

TABLE 12 CONT

STATION ALTITUDE 4051.00 FEET MSL
 24 JULY 1 1330 HRS MDT
 ASCENSION NO. 87

PRESSURE GEOMETRIC	TEMP, RATURE	REL. HUM.
ALTITUDE	AIR DEWPOINT	PERCENT
MILLIBARS MSL FEET	DEGREES CENTIGRADE	
10.0 104773.8	-37.8	
9.8 105235.7	-37.7	

STATION ALTITUDE 4051.00 FEET MSL
24 JULY 61 1300 HRS MDT
ASCENSION IS. 87

UPPER AIR DATA
205000Z0087
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 13

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
4051.0	876.7	37.1	23.0	978.2	688.4	150.0	5.1	1.000275
4500.0	863.5	32.1	33.3	978.5	683.1	147.0	4.5	1.000263
5000.0	849.0	30.7	34.1	966.8	681.4	142.6	4.0	1.000277
5500.0	834.6	29.4	35.0	954.7	679.9	137.2	3.4	1.000272
6000.0	820.5	28.1	36.0	942.8	678.3	134.4	3.5	1.000267
6500.0	806.6	26.8	37.0	931.0	676.8	171.8	3.6	1.000263
7000.0	792.6	25.4	38.7	919.2	675.2	167.7	3.1	1.000258
7500.0	778.9	24.1	40.4	907.6	673.6	209.5	2.7	1.000254
8000.0	765.4	22.7	42.2	896.2	672.0	254.2	2.2	1.000250
8500.0	752.2	21.3	43.9	884.9	670.4	262.1	2.5	1.000246
9000.0	739.1	19.9	45.6	873.8	668.7	276.4	1.6	1.000242
9500.0	725.3	18.6	46.6	862.8	667.1	243.6	2.1	1.000237
10000.0	713.5	17.5	44.4	851.2	665.7	230.9	3.7	1.000230
10500.0	700.9	16.4	42.2	839.8	664.3	237.8	5.1	1.000223
11000.0	688.4	15.2	42.8	828.3	662.9	243.2	6.5	1.000218
11500.0	676.1	14.0	43.7	816.9	661.5	250.6	7.4	1.000214
12000.0	664.0	12.9	44.6	805.7	660.1	254.0	8.3	1.000210
12500.0	652.1	11.7	45.4	794.7	658.7	251.9	8.6	1.000206
13000.0	640.4	10.4	47.3	783.9	657.2	247.6	8.8	1.000203
13500.0	628.7	9.1	51.1	773.3	655.6	240.5	9.0	1.000200
14000.0	617.2	7.7	54.9	762.9	654.0	238.3	9.4	1.000198
14500.0	605.9	6.3	58.8	752.7	652.4	239.0	9.9	1.000195
15000.0	594.9	4.9	62.6	742.7	650.8	242.5	9.7	1.000192
15500.0	583.9	3.7	62.8	732.2	649.3	248.2	9.2	1.000188
16000.0	573.0	2.7	61.0	721.5	648.0	252.7	8.8	1.000183
16500.0	562.4	1.6	59.1	711.0	646.7	256.5	8.4	1.000179
17000.0	551.8	.5	58.8	700.7	645.3	259.0	8.5	1.000175
17500.0	541.4	.8	60.8	690.8	643.7	260.7	8.7	1.000172
18000.0	531.1	-2.1	62.7	681.0	642.1	263.2	8.8	1.000169
18500.0	521.0	-3.4	64.7	671.4	640.6	266.0	8.9	1.000166
19000.0	511.1	-4.7	66.7	661.9	639.0	268.3	9.4	1.000163
19500.0	501.4	-6.0	68.7	652.6	637.4	270.3	10.1	1.000160
20000.0	491.8	-6.6	54.2	641.8	636.5	272.0	10.0	1.000154
20500.0	482.3	-7.1	36.8	631.0	635.7	271.7	9.8	1.000148
21000.0	473.0	-7.9	30.2	620.8	634.7	260.0	8.7	1.000144
21500.0	463.8	-8.9	29.0	610.9	633.5	241.1	8.8	1.000141
22000.0	454.7	-9.3	27.8	601.2	632.4	221.4	11.2	1.000138
22500.0	445.9	-10.8	26.5	591.7	631.2	212.7	14.4	1.000136
23000.0	437.1	-11.8	26.6	582.3	630.0	209.5	17.7	1.000133
23500.0	428.5	-12.8	27.6	573.1	628.7	200.3	20.0	1.000131

STATION ALTITUDE 4,510.00 FEET MSL
24 JULY 61 1350 HRS MDT
ASCENSION NO. 37

UPPER AIR DATA
2050030067
JALLEN

GEODETIC COORDINATES
33.10712 LAT UTM
100.49511 LONG UTM

TABLE 13 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUMIDITY PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND M/SEC	WIND DIRECTION DEGREES (TR)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	420.0	-13.9	28.6	564.1	627.4	203.0	21.2	1.000129
24500.0	411.7	-15.0	29.6	559.2	626.1	207.3	21.8	1.000127
25000.0	403.5	-16.0	30.6	546.5	624.8	200.1	21.9	1.000125
25500.0	395.5	-17.0	31.5	537.6	623.7	204.0	21.6	1.000123
26000.0	387.5	-17.9	32.5	528.6	622.6	202.6	20.8	1.000121
26500.0	379.7	-18.8	33.4	519.8	621.5	203.4	19.6	1.000118
27000.0	372.1	-19.7	39.8	511.1	620.4	200.4	18.3	1.000117
27500.0	364.5	-20.7	46.5	502.8	619.1	209.3	17.6	1.000115
28000.0	357.1	-21.9	48.3	494.9	617.7	211.9	17.4	1.000113
28500.0	349.8	-23.4	66.2	487.5	615.9	212.7	17.4	1.000112
29000.0	342.5	-24.5	67.2	479.6	614.5	211.0	17.4	1.000110
29500.0	335.4	-25.7	68.2	471.8	613.1	211.4	17.0	1.000108
30000.0	328.4	-26.8	69.3	464.2	611.6	212.2	16.2	1.000106
30500.0	321.6	-27.9	70.3	456.7	610.2	214.0	15.7	1.000104
31000.0	314.9	-28.7	67.9	448.0	609.2	216.0	15.6	1.000102
31500.0	308.3	-28.9	59.3	439.0	609.0	213.9	15.6	1.000098
32000.0	301.8	-30.4	54.4	433.0	607.1	220.5	15.7	1.000096
32500.0	295.4	-31.8	47.2	426.3	605.3	221.3	16.3	1.000094
33000.0	289.1	-33.2	39.1	419.0	603.6	221.3	17.3	1.000094
33500.0	282.9	-34.1	36.0	412.3	602.4	220.0	18.2	1.000093
34000.0	276.9	-34.7	36.0	404.5	601.6	217.6	18.9	1.000091
34500.0	270.9	-35.8	36.7	397.5	600.3	217.5	18.8	1.000089
35000.0	265.0	-37.1	37.9	391.0	598.6	213.9	18.0	1.000088
35500.0	259.2	-38.4	39.1	384.6	596.9	222.5	17.4	1.000086
36000.0	253.6	-39.8	40.2	378.4	595.2	223.0	17.4	1.000085
36500.0	248.0	-41.1	39.1	372.2	593.5	230.1	17.7	1.000083
37000.0	242.5	-42.3	34.3*	365.8	592.0	240.0	17.8	1.000082
37500.0	237.0	-43.4	30.2*	359.3	590.5	249.1	18.1	1.000080
38000.0	231.6	-44.5	26.1*	352.9	589.1	249.0	18.4	1.000079
38500.0	226.4	-45.6	22.1*	346.6	587.6	252.7	18.9	1.000077
39000.0	221.3	-46.8	18.0*	340.5	586.2	250.0	19.0	1.000076
39500.0	216.3	-47.9	13.9*	334.4	584.7	253.1	19.4	1.000075
40000.0	211.4	-49.0	9.8*	328.5	583.3	257.2	19.5	1.000073
40500.0	206.6	-50.1	5.8*	322.7	581.8	271.1	19.5	1.000072
41000.0	201.9	-51.2	1.7*	317.0	580.3	272.3	19.7	1.000071
41500.0	197.2	-52.3		311.0	579.0	270.1	19.9	1.000069
42000.0	192.5	-53.3		305.0	577.7	267.6	20.0	1.000068
42500.0	187.9	-54.3		299.2	576.3	264.2	18.9	1.000067
43000.0	183.5	-55.3		293.4	575.0	261.1	17.9	1.000065
43500.0	179.1	-56.3		287.8	573.7	258.0	16.7	1.000064

** AT LEVEL ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
24 JULY 61 1330 HRS MDT
ASCENSION I.O. 87

UPPER AIR DATA
20-50030003/
JALLER

TABLE 13 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM./CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
44000.0	174.9	-57.3		282.2	572.4	258.7	15.4	1.0000053
44500.0	170.7	-58.3		276.8	571.0	260.7	14.5	1.0000052
45000.0	166.7	-59.3		271.5	569.7	267.2	14.7	1.0000050
45500.0	162.7	-60.3		266.3	568.4	273.4	15.1	1.0000059
46000.0	158.8	-61.3		261.2	567.0	280.1	16.3	1.0000058
46500.0	155.1	-62.3		256.2	565.7	285.9	17.8	1.0000057
47000.0	151.4	-63.3		251.3	564.3	290.0	19.4	1.0000056
47500.0	147.7	-64.2		246.3	563.1	292.1	20.9	1.0000055
48000.0	144.0	-65.1		241.2	561.9	294.0	22.4	1.0000054
48500.0	140.5	-66.0		236.2	560.7	294.9	22.9	1.0000053
49000.0	137.0	-66.9		231.4	559.5	295.6	23.1	1.0000052
49500.0	133.6	-67.7		226.6	558.4	296.7	22.8	1.0000050
50000.0	130.3	-68.6		221.9	557.2	299.9	20.3	1.0000049
50500.0	127.1	-69.4		217.3	556.1	303.9	17.9	1.0000048
51000.0	123.9	-69.3		211.7	556.3	308.7	13.9	1.0000047
51500.0	120.8	-69.1		206.3	556.4	313.0	9.0	1.0000046
52000.0	117.8	-69.5		201.4	556.0	342.3	4.9	1.0000045
52500.0	114.8	-70.0		196.9	555.2	354.8	2.5	1.0000044
53000.0	111.9	-70.6		192.5	554.4	78.7	1.1	1.0000043
53500.0	109.1	-71.2		188.2	553.6	115.0	1.3	1.0000042
54000.0	106.3	-71.8		183.9	552.8	118.6	.7	1.0000041
54500.0	103.6	-71.3		178.8	553.5	130.4	.1	1.0000040
55000.0	101.0	-69.7		173.0	555.6	199.6	.6	1.0000039
55500.0	98.5	-68.6		167.8	557.1	198.0	1.3	1.0000037
56000.0	96.1	-67.8		163.0	558.2	198.4	2.1	1.0000036
56500.0	93.7	-67.1		158.4	559.3	188.1	3.2	1.0000035
57000.0	91.4	-66.3		153.9	560.3	184.3	4.4	1.0000034
57500.0	89.1	-65.5		149.5	561.4	178.0	5.1	1.0000033
58000.0	86.9	-64.7		145.3	562.4	163.1	5.1	1.0000032
58500.0	84.8	-64.1		141.3	563.3	148.9	5.4	1.0000031
59000.0	82.7	-64.2		137.9	563.2	138.5	5.9	1.0000031
59500.0	80.7	-64.2		134.5	563.1	130.5	6.5	1.0000030
60000.0	78.7	-64.2		131.2	563.2	124.4	7.2	1.0000029
60500.0	76.8	-63.7		127.7	563.8	123.0	7.8	1.0000028
61000.0	74.9	-63.3		124.3	564.4	121.7	8.4	1.0000028
61500.0	73.1	-62.8		121.1	565.0	120.2	9.1	1.0000027
62000.0	71.3	-62.3		117.9	565.6	118.3	9.8	1.0000026
62500.0	69.6	-61.8		114.7	566.3	116.7	10.5	1.0000026
63000.0	67.9	-61.2		111.6	567.1	114.5	11.1	1.0000025
63500.0	66.3	-60.6		108.7	568.0	111.6	11.7	1.0000024

STATION ALTITUDE 451.00 FEET MSL
24 JULY 61 1330 HRS HGT
ASCENSION NO. 87

UPPER AIR DATA
2050030087
JALLEN

GEODETIC COORDINATES
33.16/12 LAT DEG
106.49511 LONG DEG

TABLE 13 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEW-POINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KIOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KIOTS	INDEX OF REFRACTION
04000.0	64.7	-60.0		105.7	568.8	109.3	12.4	1.000024
04500.0	63.2	-59.3		102.9	569.7	108.5	13.2	1.000023
05000.0	61.6	-50.7		100.1	570.5	108.4	14.2	1.000022
05500.0	60.2	-58.1		97.5	571.4	108.3	15.1	1.000022
06000.0	58.7	-57.8		95.0	571.7	108.9	15.8	1.000021
06500.0	57.4	-57.6		92.7	571.9	103.0	16.4	1.000021
07000.0	56.0	-57.5		90.4	572.2	100.4	17.0	1.000020
07500.0	54.7	-57.3		88.2	572.4	98.1	16.7	1.000020
08000.0	53.4	-57.1		86.1	572.6	95.8	16.1	1.000019
08500.0	52.1	-57.0		84.0	572.8	93.2	15.6	1.000019
09000.0	50.9	-56.8		81.9	573.0	89.4	16.3	1.000018
09500.0	49.7	-56.6		79.9	573.2	85.7	17.2	1.000018
10000.0	48.5	-56.4		78.0	573.6	82.5	18.3	1.000017
10500.0	47.4	-56.1		76.1	573.9	79.9	19.2	1.000017
11000.0	46.3	-55.9		74.2	574.2	77.8	20.1	1.000017
11500.0	45.2	-55.6		72.4	574.6	75.4	21.0	1.000016
12000.0	44.1	-55.4		70.6	574.9	73.3	21.4	1.000016
12500.0	43.1	-55.1		68.9	575.2	71.3	21.9	1.000015
13000.0	42.1	-54.9		67.2	575.6	69.8	22.6	1.000015
13500.0	41.1	-54.6		65.5	575.9	67.7	24.0	1.000015
14000.0	40.1	-54.4		63.9	576.2	65.6	25.4	1.000014
14500.0	39.2	-54.1		62.4	576.5	70.6	27.0	1.000014
15000.0	38.3	-53.9		60.8	576.9	73.2	29.2	1.000014
15500.0	37.4	-53.6		59.3	577.2	75.5	31.3	1.000013
16000.0	36.5	-53.4		57.9	577.5	78.2	33.5	1.000013
16500.0	35.7	-52.9		56.4	578.2	81.6	35.7	1.000013
17000.0	34.9	-52.2		55.0	579.1	84.6	38.0	1.000012
17500.0	34.1	-51.5		53.5	579.9	87.9	39.8	1.000012
18000.0	33.3	-50.9		52.2	580.8	94.2	39.3	1.000012
18500.0	32.5	-50.2		50.8	581.7	100.4	39.3	1.000011
19000.0	31.8	-49.5		49.5	582.5	106.7	39.7	1.000011
19500.0	31.0	-48.9		48.2	583.4	108.3	39.2	1.000011
20000.0	30.3	-48.2		47.0	584.3	109.9	38.7	1.000010
20500.0	29.6	-47.8		45.8	584.8	111.6	38.3	1.000010
21000.0	29.0	-47.7		44.8	585.0	109.8	37.8	1.000010
21500.0	28.3	-47.5		43.7	585.2	107.0	37.4	1.000010
22000.0	27.7	-47.4		42.7	585.4	104.3	37.1	1.000010
22500.0	27.1	-47.2		41.7	585.6	102.9	36.3	1.000009
23000.0	26.5	-47.1		40.8	585.8	102.9	35.2	1.000009
23500.0	25.9	-46.9		39.8	586.0	102.6	34.1	1.000009

STATION ALTITUDE 4051.00 FEET MSL
24 JULY 11 1330 HRS MDT
ASCENSION IS. 87

UPPER AIR DATA
2050030087
JALLEN

GEODETIC COORDINATES
33.10712 LAT DEG
106.49511 LONG DEG

TABLE 13 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND M/SEC	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
34000.0	23.3	-46.8	36.9	580.2	102.6		33.1	1.000009
34500.0	24.7	-46.6	38.0	580.4	101.5		32.9	1.000008
35000.0	24.2	-46.5	37.1	580.6	100.4		32.7	1.000008
35500.0	23.6	-46.3	36.3	580.8	99.3		32.5	1.000008
36000.0	23.1	-46.2	35.4	581.0	97.6		33.1	1.000008
36500.0	22.6	-46.0	34.6	581.2	95.7		34.0	1.000008
37000.0	22.0	-45.8	33.8	581.3	93.9		34.9	1.000008
37500.0	21.6	-45.7	33.0	581.5	93.1		35.9	1.000007
38000.0	21.1	-45.5	32.2	581.7	94.7		36.8	1.000007
38500.0	20.6	-45.4	31.5	581.9	96.1		37.8	1.000007
39000.0	20.1	-45.2	30.8	582.1	97.5		38.8	1.000007
39500.0	19.7	-44.9	30.0	582.5	97.2		38.6	1.000007
40000.0	19.2	-44.6	29.3	583.0	96.7		38.3	1.000007
40500.0	18.8	-44.2	28.6	583.5	96.1		37.9	1.000006
41000.0	18.4	-43.9	28.0	583.9	94.5		37.4	1.000006
41500.0	18.0	-43.5	27.3	590.4	91.3		36.9	1.000006
42000.0	17.6	-43.1	26.6	590.9	83.0		36.5	1.000006
42500.0	17.2	-42.8	26.0	591.3	84.6		36.2	1.000006
43000.0	16.8	-42.4	25.4	591.8	84.1		37.4	1.000006
43500.0	16.4	-42.0	24.8	592.2	83.6		38.7	1.000006
44000.0	16.1	-41.8	24.2	592.6	83.5		40.0	1.000005
44500.0	15.7	-41.5	23.7	592.9	83.7		41.2	1.000005
45000.0	15.4	-41.3	23.1	593.2	85.1		42.1	1.000005
45500.0	15.0	-41.0	22.6	593.5	86.5		43.0	1.000005
46000.0	14.7	-40.8	22.1	593.8	87.6		44.0	1.000005
46500.0	14.4	-40.5	21.6	594.2	86.4		44.9	1.000005
47000.0	14.1	-40.3	21.1	594.5	87.7		45.9	1.000005
47500.0	13.6	-40.0	20.6	594.8	87.0		46.8	1.000005
48000.0	13.5	-39.8	20.1	595.1	86.3		47.7	1.000004
48500.0	13.2	-39.5	19.6	595.4	85.6		48.2	1.000004
49000.0	12.9	-39.3	19.2	595.7	85.3		48.1	1.000004
49500.0	12.6	-39.2	18.8	595.9	84.9		48.0	1.000004
50000.0	12.3	-39.1	18.4	596.0	84.4		47.8	1.000004
50500.0	12.1	-38.9	17.9	596.2	85.0		47.9	1.000004
51000.0	11.8	-38.8	17.5	596.4	86.6		48.2	1.000004
51500.0	11.5	-38.7	17.2	596.5	88.3		48.6	1.000004
52000.0	11.3	-38.5	16.8	596.7	89.9		49.0	1.000004
52500.0	11.1	-38.4	16.4	596.9				1.000004
53000.0	10.8	-38.3	16.0	597.1				1.000004
53500.0	10.6	-38.1	15.7	597.2				1.000003

STATION ALTITUDE 4,510.00 FEET MSL	UPPER AIR DATA	GEODETIC COORDINATES
24 JULY 51	2050030087	33.16712 LAT DEG
ASCENSION NO. 37	JALLEN	106.49511 LON DEG

TABLE 13 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	INDEX OF REFRACTION
104000.0	10.3	-38.0		15.3	597.4		1.000003
104500.0	10.1	-37.9		15.0	597.6		1.000003
105000.0	9.9	-37.8		14.7	597.7		1.000003

STATION, LINDSEY 4051.00 FEET MSL
24 JULY 61 1330 HRS MDT
ASCLT. 510.140. 57

MANDATORY LEVELS
2-5000000/
JALLEN

GEOGRAPHIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 14

PRESSURE GEOPOTENTIAL MILLIBARS	FELT	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUMIDITY PERCENT	WIND DATA	
				DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4963.	30.8	34.	143.1	4.0
800.0	6732.	26.2	38.	178.0	3.3
750.0	8583.	21.1	44.	281.4	2.3
700.0	10527.	16.3	42.	238.2	5.2
650.0	12579.	11.5	46.	251.6	8.7
600.0	14754.	5.6	61.	240.0	10.0
550.0	17068.	.3	59.	259.3	8.5
500.0	19549.	-6.2	69.	270.2	10.1
450.0	22236.	-10.3	27.	214.7	12.9
400.0	25178.	-16.5	31.	205.6	22.0
350.0	28434.	-23.3	60.	212.7	17.4
300.0	32079.	-30.8	53.	220.9	15.7
250.0	36242.	-40.6	41.	233.9	17.6
200.0	41108.	-51.7		271.5	19.8
175.0	43914.	-57.3		258.7	15.4
150.0	47065.	-63.7		290.7	19.9
125.0	50679.	-69.3		300.7	15.9
100.0	55029.	-69.1		198.6	.9
80.0	59473.	-64.3		128.5	0.7
70.0	62166.	-62.0		117.2	10.3
60.0	65324.	-58.0		100.3	15.1
50.0	69106.	-56.7		60.9	10.9
40.0	73772.	-54.4		69.5	25.5
30.0	79894.	-47.9		110.6	38.6
25.0	83351.	-46.7		102.2	33.1
20.0	88723.	-45.2		97.6	38.9
15.0	95087.	-41.0		86.6	43.1
10.0	104205.	-37.8			

** AT LAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4,110.0 FEET MSL
24 JULY 51 1500 HRS, MDT
ASCENDING 10.00

SIGNIFICANT LEVEL DATA
2050220000
NW 30

GEODETIC COORDINATES
32.08497 LAT DEG
106.49714 LONG DEG

TABLE 15

PRESSURE	GEOMETRIC ALTITUDE	TEMP, RATE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUMID. PERCENT
877.6	4010.4	36.2	11.1
871.4	4222.5	36.0	12.2
850.0	4963.1	33.3	10.6
739.6	9025.0	20.6	6.5
700.0	10554.6	16.6	4.9
649.0	12654.5	11.4	1.6
623.2	13764.1	8.5	-1.6
580.2	15690.1	3.1	-4.6
537.4	17710.7	-1.0	-6.2
513.2	18922.1	-4.1	-11.3
500.0	19596.7	-5.6	-13.2
489.2	20159.5	-6.5	-13.2
481.4	20572.4	-7.2	-17.3
465.8	21415.7	-8.1	-20.2
400.0	25244.4	-16.6	-34.2
384.2	26237.7	-18.4	-35.5
354.8	28179.4	-22.0	-35.5
341.2	29121.8	-24.3	-30.7
321.4	30547.5	-27.5	-39.1
308.6	31505.5	-30.0	-40.5
300.0	32165.3	-32.2	-47.5
283.8	33449.8	-34.3	-49.3
277.8	33941.9	-34.6	-48.7
250.0	36336.9	-40.8	
200.0	41214.2	-52.5	
162.4	45546.0	-62.9	
150.0	47147.9	-65.7	
133.2	49512.6	-68.4	
121.6	51310.0	-69.5	
107.2	53773.9	-72.2	
100.0	55133.2	-69.5	
93.8	56393.4	-69.4	
90.6	57083.0	-65.9	
78.4	59979.0	-66.2	
70.0	62270.6	-61.9	
64.6	63917.3	-60.3	
59.0	65797.6	-57.3	
51.6	68590.3	-58.3	
50.0	69247.2	-57.0	
42.0	72918.9	-54.2	

STATION ALTITUDE 4610.00 FEET MSL
24 JULY 51 1500 HRS WDT
ASCENSION NO. 08

SIG. IFT. ANT LEVEL DATA
2050220060
NW 30

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LON DEG

TABLE 15 CON'T

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	HLL. HUM. PERCENT
39.0	74486.7	-55.1	
34.4	77168.6	-49.9	
30.0	80137.6	-48.5	
22.4	86524.8	-46.6	
20.0	89022.3	-45.1	
17.8	91609.7	-43.3	

STATION ALTITUDE 4210.0 FEET MSL
24 JULY 51
ASCL4510.00. 08

UPP. R AIR DATA
2050220000
HW 30

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LONG DEG

TABLE 16

GEOD. TRUE ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DE. SITY GM/CM ³	SPEED OF SOUND KNOTS	DIRECTION DEGREES (IN)	DATA SPEED KNOTS	INDEX OF REFRACTION
4010.4	877.6	16.2	11.1	982.7	687.2	75.0	4.1	1.000271
4500.0	805.3	35.0	24.4	970.2	685.9	85.4	4.9	1.000271
5000.0	848.9	35.2	25.1	959.9	683.8	95.9	5.8	1.000266
5500.0	834.4	31.6	27.0	946.3	682.1	93.9	6.7	1.000263
6000.0	820.2	30.1	28.8	937.0	680.3	97.2	7.7	1.000259
6500.0	805.2	28.5	30.7	925.8	678.5	99.7	8.7	1.000256
7000.0	792.4	26.9	32.5	914.8	676.7	105.2	7.7	1.000253
7500.0	776.9	25.4	34.4	904.0	674.9	109.9	5.6	1.000249
8000.0	763.6	23.8	36.2	893.4	673.1	127.6	3.5	1.000245
8500.0	752.5	22.2	38.1	882.9	671.3	199.1	2.8	1.000241
9000.0	739.6	20.7	39.9	872.6	669.5	235.7	5.5	1.000237
9500.0	725.7	19.4	41.9	861.2	667.9	245.8	8.8	1.000234
10000.0	713.9	18.1	43.6	849.9	666.4	248.9	11.3	1.000230
10500.0	701.4	16.7	45.8	838.9	664.9	249.3	12.4	1.000226
11000.0	688.9	15.5	47.1	827.6	663.4	250.9	12.5	1.000222
11500.0	676.6	14.3	48.3	816.5	661.9	253.4	12.0	1.000218
12000.0	664.5	13.0	49.4	805.5	660.4	258.7	11.4	1.000214
12500.0	652.6	11.8	50.6	794.7	658.9	264.3	10.8	1.000210
13000.0	640.9	10.5	50.4	784.1	657.4	268.4	9.5	1.000205
13500.0	629.2	9.2	49.5	773.7	655.7	269.5	7.9	1.000200
14000.0	617.8	7.8	50.0	763.4	654.1	264.4	5.9	1.000196
14500.0	606.4	6.4	52.1	753.2	652.4	254.9	5.1	1.000192
15000.0	595.3	5.0	54.1	743.2	650.8	246.2	5.0	1.000189
15500.0	584.3	3.6	56.2	733.3	649.1	249.2	5.6	1.000185
16000.0	573.4	2.5	57.2	722.8	647.7	253.7	6.4	1.000182
16500.0	562.7	1.5	57.4	712.0	646.4	260.9	7.4	1.000178
17000.0	552.2	.5	57.6	701.3	645.2	268.2	8.3	1.000175
17500.0	541.9	-.6	57.9	690.8	644.0	270.5	9.0	1.000171
18000.0	531.6	-1.7	57.8	680.8	642.5	271.6	9.4	1.000168
18500.0	521.6	-3.0	57.4	671.2	641.0	270.4	9.3	1.000164
19000.0	511.7	-4.3	56.8	661.7	639.4	265.0	9.1	1.000161
19500.0	501.9	-5.4	55.3	651.8	638.0	252.4	9.0	1.000157
20000.0	492.2	-6.2	57.9	641.4	637.0	258.9	9.7	1.000155
20500.0	482.8	-7.1	46.6	631.2	635.9	252.3	11.4	1.000150
21000.0	473.4	-7.7	30.8	620.7	635.0	213.0	13.0	1.000144
21500.0	464.2	-8.3	18.0	610.3	634.2	207.5	14.6	1.000139
22000.0	455.1	-9.4	18.3	600.8	632.0	205.1	15.6	1.000137
22500.0	446.1	-10.5	18.6	591.5	631.5	203.4	16.5	1.000135
23000.0	437.4	-11.6	18.8	582.3	630.2	202.5	17.3	1.000132
23500.0	428.7	-12.7	19.1	573.3	629.0	202.0	18.3	1.000130

STATION ALTITUDE 4010.0 FEET MSL
24 JULY 61 1501 HRS MDT
ASCENSION NO. 68

UPPER AIR DATA
2050220000
NW 30

GEODETIC COORDINATES
32.08497 LAT DEG
106.49714 LONG DEG

TABLE 16 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DE. CITY GM/CUBIC METER	SPEED OF SOUND KI/MS	WIND DATA DIRECTION (IN) DEGREES	SPEED KI/MS	INDEX OF REFRACTION
24000.0	420.3	-13.8	19.3	564.4	627.5	202.9	19.4	1.000128
24500.0	412.0	-14.9	19.6	555.7	626.1	203.4	20.5	1.000126
25000.0	403.9	-16.1	19.9	547.1	624.8	202.5	20.7	1.000124
25500.0	395.9	-17.1	21.3	538.3	623.5	201.5	20.8	1.000122
26000.0	387.9	-18.0	23.8	529.4	622.4	200.4	20.2	1.000120
26500.0	380.1	-18.9	25.4	520.6	621.3	199.2	19.5	1.000118
27000.0	372.4	-19.8	26.2	511.9	620.2	203.3	17.7	1.000116
27500.0	364.8	-20.7	27.0	503.3	619.0	208.8	16.0	1.000114
28000.0	357.4	-21.7	27.7	495.0	617.9	211.1	14.6	1.000112
28500.0	350.1	-22.8	37.2	487.0	616.6	212.5	13.2	1.000111
29000.0	342.9	-24.0	51.5	479.3	615.1	211.2	13.2	1.000109
29500.0	335.8	-25.1	48.9	471.5	613.6	208.6	14.1	1.000107
30000.0	328.9	-26.3	40.8	463.9	612.2	206.4	15.0	1.000105
30500.0	322.0	-27.4	32.8	456.4	610.8	209.8	15.8	1.000103
31000.0	315.3	-28.7	25.4	449.2	609.2	210.8	16.5	1.000101
31500.0	308.7	-30.0	18.1	442.2	607.5	210.8	16.6	1.000099
32000.0	302.1	-31.6	19.5	435.8	605.4	210.3	16.6	1.000098
32500.0	295.7	-32.7	20.0	428.4	604.1	211.5	16.8	1.000096
33000.0	289.4	-33.6	20.0	420.7	603.0	212.6	17.0	1.000094
33500.0	283.2	-34.3	20.2	413.0	602.1	212.3	16.4	1.000092
34000.0	277.1	-34.8	21.5*	404.9	601.5	211.3	15.5	1.000091
34500.0	271.1	-36.0	16.9*	398.2	599.9	213.8	14.2	1.000089
35000.0	265.2	-37.3	12.3*	391.7	598.3	219.1	12.8	1.000087
35500.0	259.4	-38.6	7.7*	385.3	596.6	220.2	12.3	1.000086
36000.0	253.7	-39.9	3.1*	379.0	595.0	233.5	13.4	1.000084
36500.0	248.1	-41.2		372.7	593.3	239.3	14.5	1.000083
37000.0	242.5	-42.4		366.1	591.8	241.9	14.9	1.000082
37500.0	237.0	-43.6		359.7	590.3	244.3	15.2	1.000080
38000.0	231.7	-44.8		353.4	588.7	249.3	14.8	1.000079
38500.0	226.4	-46.0		347.3	587.2	255.9	14.4	1.000077
39000.0	221.3	-47.2		341.2	585.6	261.5	14.4	1.000076
39500.0	216.3	-48.4		335.3	584.1	266.4	14.6	1.000075
40000.0	211.4	-49.6		329.5	582.5	270.9	14.7	1.000073
40500.0	206.6	-50.8		323.7	580.9	275.4	14.5	1.000072
41000.0	202.0	-52.0		318.1	579.4	279.7	14.3	1.000071
41500.0	197.3	-53.2		312.4	577.8	281.6	14.1	1.000070
42000.0	192.6	-54.4		306.7	576.2	283.5	13.9	1.000068
42500.0	188.0	-55.6		301.0	574.6	286.8	14.2	1.000067
43000.0	183.5	-56.8		295.5	573.0	288.0	14.5	1.000066
43500.0	179.2	-58.0		290.1	571.5	275.1	14.6	1.000065

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4010.40 FEET MSL
24 JULY 61 1500 HRS MD
ASCENSION NO. 68

UPPER AIR DATA
2050220000
NW 30

GEOMETRIC COORDINATES
32.08497 LAT DEG
106.49714 LONG DEG

TABLE 16 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DE. SITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
44000.0	174.9	-59.2		284.8	569.9	272.1	14.6	1.000003
44500.0	170.8	-60.4		279.6	568.3	269.2	14.6	1.000002
45000.0	166.7	-61.6		274.5	566.6	272.0	14.8	1.000001
45500.0	162.8	-62.8		269.5	565.0	270.3	15.2	1.000000
46000.0	158.8	-63.7		264.1	563.8	260.9	15.6	1.000000
46500.0	154.9	-64.6		258.7	562.6	269.0	16.8	1.000000
47000.0	151.1	-65.4		253.4	561.5	295.9	18.2	1.000000
47500.0	147.4	-66.1		248.0	560.6	299.0	19.5	1.000000
48000.0	143.7	-66.7		242.5	559.8	300.0	20.6	1.000000
48500.0	140.2	-67.2		237.1	559.0	301.0	21.6	1.000000
49000.0	136.7	-67.8		231.9	558.2	304.0	20.2	1.000000
49500.0	133.3	-68.4		226.8	557.5	308.2	18.8	1.000000
50000.0	129.9	-68.7		221.4	557.0	310.7	15.2	1.000000
50500.0	126.7	-69.0		216.2	556.6	313.4	9.9	1.000000
51000.0	123.5	-69.3		211.1	556.2	319.4	4.9	1.000000
51500.0	120.4	-69.7		206.2	555.7	295.5	1.5	1.000000
52000.0	117.4	-70.3		201.5	554.9	173.9	2.9	1.000000
52500.0	114.4	-70.8		197.0	554.2	159.9	4.3	1.000000
53000.0	111.5	-71.4		192.5	553.4	157.7	2.7	1.000000
53500.0	108.7	-71.9		188.2	552.7	68.6	2.1	1.000000
54000.0	106.0	-71.8		183.3	552.9	67.7	2.2	1.000000
54500.0	103.3	-70.8		177.8	554.2	64.9	1.9	1.000000
55000.0	100.7	-69.6		172.5	555.6	60.7	1.5	1.000000
55500.0	98.2	-69.5		167.9	556.0	108.3	2.4	1.000000
56000.0	95.7	-69.4		163.6	556.0	126.0	4.6	1.000000
56500.0	93.3	-68.9		159.1	556.8	132.9	6.9	1.000000
57000.0	91.0	-68.3		155.2	560.3	137.5	7.4	1.000000
57500.0	88.7	-65.9		149.2	560.8	142.2	7.5	1.000000
58000.0	86.5	-66.0		145.5	560.7	146.7	7.7	1.000000
58500.0	84.4	-66.0		142.0	560.6	158.3	7.7	1.000000
59000.0	82.3	-66.1		138.5	560.5	170.3	8.0	1.000000
59500.0	80.3	-66.2		135.1	560.5	180.6	8.5	1.000000
60000.0	78.3	-66.2		131.8	560.5	154.2	7.5	1.000000
60500.0	76.4	-65.2		128.0	561.4	127.2	6.4	1.000000
61000.0	74.5	-64.3		124.3	563.0	109.2	10.4	1.000000
61500.0	72.7	-63.3		120.7	564.5	104.1	11.7	1.000000
62000.0	70.9	-62.4		117.3	565.0	99.9	13.0	1.000000
62500.0	69.2	-61.7		114.0	566.5	97.1	14.1	1.000000
63000.0	67.6	-61.2		111.0	567.2	93.2	13.7	1.000000
63500.0	65.9	-60.7		108.1	567.8	94.4	13.4	1.000000

STATION ALTITUDE 4010.40 FEET MSL
24 JULY 71 1500 HRS MDT
ASCENSION, NO. 08

UPPER AIR DATA
2050220060
NW 30

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LONG DEG

TABLE 16 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	WIND SPEED OF CURVE METER	WIND DIRECTION DEGREES (IN)	WIND SPEED KNOTS	INDEX OF REFRACTION
6400.0	64.3	-60.2		105.2	100.5	13.1	1.000023
6450.0	62.8	-59.4		102.4	98.6	14.1	1.000023
6500.0	61.3	-58.6		99.5	97.0	15.1	1.000022
6550.0	59.9	-57.8		96.8	95.7	16.1	1.000022
6600.0	58.4	-57.4		94.3	94.9	16.7	1.000021
6650.0	57.0	-57.6		92.2	94.2	17.4	1.000021
6700.0	55.7	-57.7		90.1	93.5	18.0	1.000020
6750.0	54.4	-57.9		88.0	93.1	17.8	1.000020
6800.0	53.1	-58.1		86.0	92.8	17.6	1.000019
6850.0	51.8	-58.3		84.0	92.4	17.4	1.000019
6900.0	50.6	-57.5		81.7	91.6	17.5	1.000018
6950.0	49.4	-56.8		79.6	90.9	17.5	1.000018
7000.0	48.2	-56.4		77.5	89.9	17.6	1.000017
7050.0	47.1	-56.0		75.0	88.4	19.4	1.000017
7100.0	46.0	-55.7		73.7	87.7	21.4	1.000016
7150.0	44.9	-55.3		71.8	86.6	23.4	1.000016
7200.0	43.9	-54.9		70.0	85.5	25.1	1.000016
7250.0	42.8	-54.5		68.3	84.3	26.8	1.000015
7300.0	41.8	-54.2		66.6	83.4	28.6	1.000015
7350.0	40.9	-54.5		65.1	82.2	30.4	1.000014
7400.0	39.9	-54.8		63.7	81.2	32.5	1.000014
7450.0	39.0	-55.1		62.3	80.4	34.5	1.000014
7500.0	38.1	-54.1		60.6	79.6	36.4	1.000013
7550.0	37.2	-53.1		58.9	81.2	37.6	1.000013
7600.0	36.3	-52.2		57.3	84.6	38.9	1.000013
7650.0	35.5	-51.2		55.7	87.8	40.3	1.000012
7700.0	34.7	-50.2		54.2	90.9	40.1	1.000012
7750.0	33.9	-49.7		52.8	94.1	39.3	1.000012
7800.0	33.1	-49.5		51.6	97.5	38.6	1.000011
7850.0	32.4	-49.3		50.3	100.6	38.0	1.000011
7900.0	31.6	-49.0		49.1	101.1	36.7	1.000011
7950.0	30.9	-48.8		48.0	101.8	35.4	1.000011
8000.0	30.2	-48.6		46.8	102.1	34.1	1.000010
8050.0	29.5	-48.4		45.7	101.8	32.9	1.000010
8100.0	28.8	-48.2		44.7	100.4	31.7	1.000010
8150.0	28.2	-48.1		43.6	99.0	30.6	1.000010
8200.0	27.6	-47.9		42.6	97.4	29.4	1.000009
8250.0	26.9	-47.8		41.6	96.3	29.3	1.000009
8300.0	26.3	-47.6		40.7	95.4	29.4	1.000009
8350.0	25.7	-47.5		39.7	94.0	29.5	1.000009

STATION ALTITUDE 4310.40 FEET MSL
24 JULY 61 1500 HRS MDT
ASCENDING NO. 08

UPPER AIR DATA
2050220000
NW 30

GEODLTIC COORDINATES
32.88497 LAT DEG
106.49714 LONG DEG

TABLE 16 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION.
84000.0	22.1	-47.4		34.8	545.4	93.7	29.7	1.000009
84500.0	24.6	-47.2		37.9	585.0	93.0	30.4	1.000008
85000.0	24.0	-47.1		37.0	585.8	93.4	31.2	1.000008
85500.0	23.5	-46.9		36.1	586.0	93.2	31.9	1.000008
86000.0	22.9	-46.8		35.3	586.2	92.6	32.6	1.000008
86500.0	22.4	-46.6		34.5	586.4	91.5	33.2	1.000008
87000.0	21.9	-46.3		33.7	586.7	90.4	33.9	1.000007
87500.0	21.4	-46.0		32.9	587.1	89.4	34.5	1.000007
88000.0	20.9	-45.7		32.1	587.5	89.6	34.2	1.000007
88500.0	20.5	-45.4		31.3	587.9	89.7	34.0	1.000007
89000.0	20.0	-45.1		30.6	588.3	89.8	33.8	1.000007
89500.0	19.6	-44.8		29.9	588.7			1.000006
90000.0	19.1	-44.4		29.1	589.2			1.000006
90500.0	18.7	-44.1		28.5	589.6			1.000006
91000.0	18.3	-43.7		27.8	590.1			1.000006
91500.0	17.9	-43.4		27.1	590.5			1.000006

STATION ALTITUDE 4010.40 FEET MSL
24 JULY 61
ASCENSION, NO. 68

MANDATORY LEVELS
2050220000
NW 30

GEODETIC COORDINATES
32.68497 LAT DEG
106.49714 LONG DEG

TABLE 17

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUMIDITY PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEW POINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4960.	33.3	10.6	25.	69.0	5.7
800.0	6739.	27.8	9.4	31.	101.0	0.8
750.0	8597.	21.9	7.1	38.	211.2	3.2
700.0	10544.	16.6	4.9	46.	249.3	12.6
650.0	12599.	11.5	1.7	51.	265.1	10.5
600.0	14774.	5.6	-3.1	53.	248.0	4.9
550.0	17087.	.2	-7.1	50.	267.1	8.4
500.0	19569.	-5.6	-13.2	55.	250.2	9.0
450.0	22260.	-10.0	-29.5	18.	204.1	16.1
400.0	25202.	-16.6	-34.2	20.	202.0	20.8
350.0	28457.	-22.8	-33.3	37.	212.5	13.2
300.0	32101.	-32.2	-47.5	20.	210.8	16.7
250.0	36257.	-40.8			237.6	14.1
200.0	41114.	-52.5			280.4	14.2
175.0	43903.	-59.2			272.2	14.6
150.0	47020.	-65.7			297.5	18.6
125.0	50621.	-69.2			316.2	7.4
100.0	54963.	-69.5			59.6	1.4
80.0	59378.	-66.2			178.5	8.4
70.0	62057.	-61.9			98.2	13.6
60.0	65212.	-57.9			95.9	16.0
50.0	68986.	-57.0			91.3	17.5
40.0	73657.	-54.8			75.2	32.1
30.0	79794.	-48.5			102.2	33.9
25.0	83741.	-47.3			93.7	24.8
20.0	88603.	-45.1			89.3	33.8

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
24 JULY 61 1700 HRS PDT
ASCENSION IS. 00

SIGNIFICANT LEVEL DATA
20500300006
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 18

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
673.8	34.7	16.3	38.0
868.0	35.7	13.2	26.0
850.0	33.5	12.5	26.0
700.0	17.8	5.1	43.0
649.0	11.9	3.4	56.0
587.4	4.3	.3	75.0
569.5	2.2	-.4	83.0
553.0	.8	-3.8	71.0
528.2	-1.8	-6.5	70.0
500.0	-5.4	-10.0	70.0
479.4	-6.8	-17.2	43.0
448.4	-10.8	-24.6	31.0
430.6	-12.2	-23.6	38.0
431.2	-13.3	-17.3	72.0
411.4	-14.7	-25.0	41.0
404.4	-14.9	-26.0	38.0
400.0	-15.6	-25.5	42.0
394.0	-16.1	-23.0	55.0
390.6	-16.5	-25.1	47.0
343.4	-23.9	-38.7	24.0
337.2	-23.9	-39.1	23.0
300.0	-31.0	-40.1	40.0
250.0	-41.5	-50.4	37.0
233.0	-45.6		
200.0	-52.9		
183.8	-57.1		
166.2	-62.1		
150.0	-65.8		
134.0	-69.0		
124.2	-68.5		
167.4	-73.0		
100.0	-69.5		
78.8	-61.9		
70.0	-60.8		
57.4	-58.7		
50.0	-54.3		
45.0	-53.1		

STATION ALTITUDE 4051.00 FEET MSL
24 JULY 61 1700 HRS MDT
ASCENSION, NO. 88

UPPER AIR DATA
2050030088
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 19

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA		INPUT OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE				DIRECTION DEGREES (TN)	SPEED KNOTS	
4051.0	875.8	34.7	18.3	38.0	979.8	686.7	220.0	5.1	1.000303
4500.0	860.7	34.8	12.9	26.8	967.3	685.9	208.0	4.8	1.000275
5000.0	840.3	33.1	12.4	28.3	956.4	684.0	194.0	4.8	1.000271
5500.0	831.8	31.0	11.9	29.7	944.4	682.4	180.6	5.1	1.000267
6000.0	817.5	30.4	11.3	31.0	932.6	680.8	164.7	3.9	1.000263
6500.0	803.5	29.0	10.8	32.3	920.9	679.2	214.5	2.7	1.000259
7000.0	789.7	27.6	10.2	33.7	909.5	677.6	255.2	4.3	1.000255
7500.0	775.2	26.2	9.5	35.0	898.2	675.9	268.3	6.2	1.000251
8000.0	762.9	24.8	8.8	36.4	887.1	674.3	273.8	7.7	1.000246
8500.0	749.8	23.4	8.1	37.7	876.1	672.7	275.1	8.1	1.000242
9000.0	737.0	22.0	7.4	39.0	865.4	671.0	276.3	8.7	1.000238
9500.0	724.3	20.6	6.6	40.4	854.7	669.4	260.4	8.9	1.000233
10000.0	711.9	19.2	5.9	41.7	844.2	667.7	255.3	8.9	1.000229
10500.0	699.7	17.8	5.1	43.1	833.9	666.1	249.8	8.9	1.000225
11000.0	687.2	16.4	4.8	46.2	823.0	664.4	291.8	9.1	1.000222
11500.0	675.0	15.0	4.4	49.2	812.3	662.8	294.4	9.0	1.000219
12000.0	663.0	13.6	4.0	52.3	801.8	661.2	297.5	8.8	1.000216
12500.0	651.2	12.2	3.5	55.4	791.5	659.6	293.2	8.2	1.000213
13000.0	639.4	10.8	3.0	58.8	781.0	657.9	293.0	7.3	1.000210
13500.0	627.7	9.4	2.5	62.3	770.6	656.3	264.9	6.2	1.000207
14000.0	616.3	8.0	2.0	65.8	760.4	654.6	275.4	5.5	1.000203
14500.0	605.1	6.6	1.4	69.4	750.4	652.9	264.4	5.0	1.000200
15000.0	594.0	5.2	.7	72.9	740.5	651.3	252.7	5.0	1.000196
15500.0	583.2	3.8	.1	76.9	730.6	649.6	241.6	5.2	1.000193
16000.0	572.3	2.5	-.3	81.7	720.4	648.1	240.7	6.0	1.000190
16500.0	561.7	1.5	-2.0	77.4	709.8	646.8	251.6	6.9	1.000185
17000.0	551.2	.6	-4.0	70.9	699.2	645.6	255.9	8.1	1.000179
17500.0	540.8	-.5	-5.1	70.5	688.9	644.3	253.9	9.3	1.000175
18000.0	530.6	-1.5	-6.3	70.1	678.7	642.9	250.9	10.4	1.000171
18500.0	520.6	-2.8	-7.4	70.0	669.0	641.4	247.1	10.9	1.000167
19000.0	510.7	-4.0	-8.7	70.0	659.4	639.9	242.0	11.2	1.000164
19500.0	500.9	-5.3	-9.9	70.0	650.1	638.3	234.2	11.3	1.000160
20000.0	491.3	-6.0	-12.7	58.8	639.5	637.3	225.9	11.7	1.000155
20500.0	481.9	-6.6	-16.2	46.3	629.0	636.4	217.9	12.6	1.000149
21000.0	472.6	-7.7	-18.8	40.4	619.4	635.1	211.0	13.4	1.000145
21500.0	463.4	-8.8	-20.9	36.9	610.2	633.7	205.2	14.1	1.000142
22000.0	454.4	-10.0	-23.0	33.4	601.1	632.2	202.9	15.2	1.000139
22500.0	445.5	-11.2	-24.2	33.0	592.1	630.7	203.4	16.6	1.000137
23000.0	436.8	-12.5	-21.6	46.3	583.1	629.3	208.5	17.9	1.000136
23500.0	428.1	-13.5	-18.2	67.3	573.7	628.1	212.2	19.0	1.000136

STATION ALTITUDE 4,510.00 FEET MSL
24 JULY 61 1700 HRS MDT
ASCENSION NO. 08

U.P.P.R AIR DATA
2050030080
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 19 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (IN) SPEED (KNOTS)	INDEX OF REFRACTION
24000.0	415.7	-14.1	54.1	563.8	627.3	213.2	1.000132
24500.0	411.4	-14.7	41.0	554.1	626.5	212.6	1.000128
25000.0	405.2	-15.1	39.1	543.9	626.0	210.6	1.000125
25500.0	395.1	-16.0	52.5	534.9	625.0	206.6	1.000124
26000.0	387.2	-17.0	45.4	526.2	623.7	207.0	1.000121
26500.0	379.3	-18.2	41.8	518.0	622.3	205.9	1.000119
27000.0	371.7	-19.4	38.1	509.9	620.8	205.5	1.000117
27500.0	364.1	-20.5	34.5	501.9	619.3	207.5	1.000114
28000.0	356.7	-21.7	30.8	494.1	617.9	210.3	1.000112
28500.0	349.5	-22.9	27.1	486.4	616.4	213.1	1.000110
29000.0	342.4	-23.9	23.8	478.4	615.1	219.7	1.000108
29500.0	335.3	-24.2	23.8	469.2	614.7	223.1	1.000106
30000.0	328.3	-25.5	26.9	461.8	613.1	228.0	1.000104
30500.0	321.5	-26.8	30.0	454.5	611.5	234.0	1.000102
31000.0	314.7	-28.1	33.0	447.3	609.9	236.9	1.000101
31500.0	308.2	-29.4	36.1	440.3	608.3	239.4	1.000099
32000.0	301.7	-30.6	39.2	433.4	606.7	240.3	1.000098
32500.0	295.3	-31.9	39.7	426.3	605.1	240.7	1.000096
33000.0	288.9	-33.2	39.4	419.3	603.6	234.8	1.000094
33500.0	282.6	-34.4	39.0	412.4	602.0	229.5	1.000093
34000.0	276.5	-35.7	38.7	405.6	600.4	224.0	1.000091
34500.0	270.5	-37.0	38.3	398.9	598.8	219.0	1.000090
35000.0	264.7	-38.2	37.9	392.4	597.2	221.5	1.000088
35500.0	258.9	-39.5	37.6	386.0	595.6	227.1	1.000086
36000.0	253.3	-40.7	37.2	379.7	593.9	233.7	1.000085
36500.0	247.8	-42.0	32.3**	373.4	592.3	241.2	1.000084
37000.0	242.3	-43.3	20.5**	367.2	590.6	247.0	1.000082
37500.0	236.9	-44.6	8.6**	361.1	588.9	250.6	1.000080
38000.0	231.5	-45.9		354.9	587.3	254.2	1.000079
38500.0	226.2	-47.0		348.5	585.8	258.2	1.000078
39000.0	221.1	-48.1		342.2	584.4	263.3	1.000076
39500.0	216.0	-49.2		336.0	583.0	269.8	1.000075
40000.0	211.1	-50.3		330.0	581.5	275.5	1.000073
40500.0	206.2	-51.4		324.0	580.1	280.5	1.000072
41000.0	201.5	-52.5		318.2	578.6	285.6	1.000071
41500.0	196.8	-53.7		312.4	577.1	290.9	1.000070
42000.0	192.2	-54.9		306.8	575.6	293.7	1.000068
42500.0	187.7	-56.1		301.2	574.0	294.2	1.000067
43000.0	183.3	-57.2		295.7	572.4	290.4	1.000066
43500.0	178.9	-58.4		290.3	570.8	282.8	1.000065

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4351.00 FEET MSL
24 JULY 61 1700 HRS MDT
ASCENSION, NO. 88

UPPER AIR DATA
2050030086
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.449511 LONG DEG

TABLE 19 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CELSIUS	DEWPOINT TEMPERATURE DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KILOTS	DIRECTION DEGREES (TRUE)	WIND DATA SPEED KILOTS	INDEX OF REFRACTION
44000.0	174.6	-59.6			284.9	569.2	277.0	14.0	1.000063
44500.0	170.4	-60.9			279.7	567.6	276.5	14.8	1.000062
45000.0	166.3	-62.1			274.5	566.0	276.5	15.5	1.000061
45500.0	162.3	-63.0			269.0	564.8	274.9	16.2	1.000060
46000.0	158.3	-63.9			263.5	563.6	273.0	17.0	1.000059
46500.0	154.4	-64.7			258.2	562.4	270.5	18.1	1.000058
47000.0	150.7	-65.6			252.9	561.2	273.0	19.3	1.000056
47500.0	146.9	-66.4			247.6	560.1	275.7	20.9	1.000055
48000.0	143.3	-67.2			242.3	559.1	277.1	22.6	1.000054
48500.0	139.7	-67.9			237.2	558.1	277.2	23.3	1.000053
49000.0	136.2	-68.7			232.1	557.1	291.7	19.9	1.000052
49500.0	132.9	-68.9			226.6	556.4	283.9	16.7	1.000050
50000.0	129.5	-68.8			220.8	557.0	270.9	13.2	1.000049
50500.0	126.3	-68.6			215.1	557.2	248.2	10.5	1.000048
51000.0	123.1	-68.8			209.9	556.9	240.4	10.0	1.000047
51500.0	120.0	-69.6			205.4	555.9	216.2	10.0	1.000046
52000.0	117.0	-70.4			201.0	554.8	211.9	10.0	1.000045
52500.0	114.0	-71.1			196.7	553.7	206.1	9.6	1.000044
53000.0	111.2	-71.9			192.4	552.6	204.0	8.9	1.000043
53500.0	108.3	-72.7			188.3	551.5	199.5	8.3	1.000042
54000.0	105.6	-72.2			183.1	552.3	195.9	7.8	1.000041
54500.0	102.9	-70.9			177.3	554.0	191.8	7.5	1.000039
55000.0	100.3	-69.7			171.8	555.7	195.5	8.2	1.000038
55500.0	97.9	-68.8			166.8	556.9	200.5	9.2	1.000037
56000.0	95.4	-68.0			162.1	558.0	203.7	10.2	1.000036
56500.0	93.1	-67.2			157.5	559.1	206.0	10.8	1.000035
57000.0	90.8	-66.4			153.0	560.1	208.1	11.4	1.000034
57500.0	88.6	-65.6			148.7	561.2	217.7	8.1	1.000033
58000.0	86.4	-64.8			144.5	562.3	242.0	4.9	1.000032
58500.0	84.3	-64.0			140.4	563.4	297.1	3.3	1.000031
59000.0	82.2	-63.2			136.4	564.4	21.1	4.2	1.000030
59500.0	80.2	-62.4			132.5	565.5	43.0	8.7	1.000030
60000.0	78.2	-61.3			128.9	566.5	62.2	11.0	1.000029
60500.0	76.3	-61.6			125.7	566.6	64.2	13.3	1.000028
61000.0	74.5	-61.4			122.5	566.9	97.5	15.6	1.000027
61500.0	72.7	-61.1			119.4	567.2	165.4	15.6	1.000027
62000.0	70.9	-60.9			116.4	567.5	113.0	14.7	1.000026
62500.0	69.2	-60.7			113.5	567.9	107.8	14.0	1.000025
63000.0	67.6	-60.4			110.6	568.2	100.4	13.5	1.000025
63500.0	65.9	-60.2			107.9	568.5	93.7		1.000024

STATION ALTITUDE 4351.00 FEET MSL
24 JULY 51 1700 HRS PDT
ASCENSION I.O. 88

UPPER AIR DATA
2050030080
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 19 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
6400.0	64.4	-59.9		105.2	568.9	87.3	13.0	1.000023
6500.0	62.8	-59.7		102.5	569.2	82.4	12.9	1.000023
6600.0	61.3	-59.4		99.9	569.5	84.3	13.1	1.000022
6700.0	59.9	-59.1		97.4	569.9	86.1	13.3	1.000022
6800.0	58.4	-58.9		95.0	570.3	81.4	15.5	1.000021
6900.0	57.0	-58.5		92.6	570.8	76.8	18.4	1.000020
7000.0	55.7	-57.7		90.1	571.8	73.2	20.6	1.000020
7100.0	54.4	-57.0		87.6	572.8	69.7	21.5	1.000020
7200.0	53.1	-56.2		85.3	573.8	66.6	22.6	1.000019
7300.0	51.8	-55.5		83.0	574.8	66.1	22.5	1.000018
7400.0	50.6	-54.7		80.7	575.8	65.6	22.5	1.000018
7500.0	49.4	-54.2		78.6	576.5			1.000017
7600.0	48.3	-53.9		76.7	576.8			1.000017
7700.0	47.2	-53.6		74.8	577.2			1.000016
7800.0	46.1	-53.4		73.0	577.6			1.000016

STATION ALTITUDE 4351.00 FEET MSL
 24 JULY 61 1700 HRS MDT
 ASCENSION NO. 03

MANDATORY LEVELS
 2050030086
 JALLEN

TABLE 20

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUMID. PERCENT	WIND DATA	
					DIRECTION DEGREES (TN)	SPEED KNOTS
650.0	4871.	33.5	12.5	28.	197.0	4.8
800.0	6655.	28.6	10.6	33.	231.5	5.0
750.0	8520.	23.4	8.1	38.	275.2	8.2
700.0	10478.	17.8	5.1	43.	289.8	8.9
650.0	12539.	12.0	3.5	56.	296.0	8.1
600.0	14718.	5.9	1.1	71.	299.0	5.0
550.0	17036.	.5	-4.2	71.	250.2	8.2
500.0	19523.	-5.4	-10.0	70.	233.2	11.4
450.0	22214.	-10.6	-24.2	32.	204.1	15.8
400.0	25156.	-15.6	-25.5	42.	210.0	18.0
350.0	28419.	-22.8	-36.4	27.	214.7	17.8
300.0	32073.	-31.0	-40.1	40.	240.2	15.3
250.0	36225.	-41.5	-50.4	37.	238.0	15.7
200.0	41065.	-52.9			207.1	13.9
175.0	43848.	-59.5			278.0	13.9
150.0	46963.	-65.8			293.0	19.5
125.0	50558.	-68.5			237.0	10.0
100.0	54896.	-69.5			195.9	8.3
80.0	59340.	-62.4			43.2	8.7
70.0	62056.	-60.8			111.3	15.2
60.0	65214.	-59.2			85.9	13.3
50.0	69000.	-54.3				

END
DATE